

EPA REGISTRATION
NUMBER 70506-57 Vol 1

Explore Registrations

Reg Number: 70506-57 Reg. Type: Product Registration - Section 3 Status: Conditionally Registered (25-Aug-2005)

Name: BIFENTURE EC AGRICULTURAL INSECTICIDE <View Registration Details>

(New Receipts)

S:	Submission Type	OPP Rec'd Date	Resubmission	Description
783784	Amendment	01-Sep-2005	<input type="radio"/> Yes <input checked="" type="radio"/> No	LABEL REVISIONS IN RESPONSE TO COPYRIGHT INFRINGEMENT CHALLENGE

...Decisions...

- Data Requirements
 - D: Pending; 356128; 70506-57;310;ADDITIONAL
 - S: 783014 8/17/2005; Amendment; 70506
 - S: 777065 4/5/2005; Amendment; 70506
 - D: Pending; 334427; 70506-57;165;NEW REGIS

S: 783014 Reg #: 70506-57

Submission Type: Amendment

Resubmission?: ☒ Yes ☐ No

Decision #: 356128; 310;ADDITIONAL USE;TECHNICAL;ME-TOO;

Submitter Company: UNITED PHOSPHORUS INC

Application Date: 16-Aug-2005

OPP Received Date: 17-Aug-2005 Date Sent to Risk manager: 18-Aug-2005

Studies Included?: ☐ Yes ☒ No Fast Track?: ☒ Yes ☐ No

Form A Signed?: ☐ Yes ☐ No ☒ None Date:

Form B Signed?: ☐ Yes ☐ No ☒ None Date:

Reviewer: DeLuise, Linda

Received DT: Editable Due DT:

Submission Due DT: 15-Nov-2005 Response: D, 17-Aug-2005

Priority Weight: Priority Points:

Comments: Form on 777065 original registration had

George LaRocca... EPA-OPP IN Mail... US EPA - Pestic... 1:21 PM

LD-310

call and indicate OTP and Data Maturity is needed since this additions represents new directions for use supported by data.

called
9/14/05
9:40 AM

called
12/15/05
1:30
revised to
add OTP
data maturity



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

August 18, 2005

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

ANN TILLMAN
UNITED PHOSPHORUS INC
423 RIVERVIEW PLAZA
TRENTON, NJ 08611

PRODUCT NAME: BIFENTURE EC AGRICULTURAL INSECTICIDE
COMPANY NAME: UNITED PHOSPHORUS INC
OPP IDENTIFICATION NUMBER: 274856
EPA FILE SYMBOL: 70506-57
EPA RECEIPT DATE: 08/17/05

SUBJECT: RECEIPT OF AMENDMENT

DEAR REGISTRANT:

The Office of Pesticide Programs has received your application for an amendment and it has passed an administrative screen for completeness.

During the initial screen we determined that the application appears to qualify for fast track review. The package will now be forwarded to the Product Manager for review to determine its acceptability for fast track status.

If you have any questions, please contact Registration Division, Risk Management Team 13, at (703) 305-6100.

Sincerely,

A handwritten signature in cursive script, appearing to read "J. Wrice", is positioned above the typed name and title.

Front End Processing Staff
Information Services Branch
Information Technology & Resources Management Division

Receipt for Section 3

S: 783014 Resubmission: ☒ Yes ☐ No

Regulatory Type: Product Registration - Section 3 Fee For Service: ☒ Yes ☐ No

Application Type: Amendment Billable: ☐ Yes ☒ No

Company: 70506 UNITED PHOSPHORUS INC V

Risk Manager: Registration Division, Risk Management Team 13

Product #: 70506-57 Product Name: BIFENTURE EC AGRICULTURAL INSECTICIDE

Override#:

Me Too Section3: 279-3069 Me Too Product Name: CAPTURE 2 EC INSECTICIDE/MITICIDE

Application Date: 16-Aug-2005 OPP Rec'd Date: 17-Aug-2005

Front End Date: 17-Aug-2005 Risk Manager Send Date:

FFS Due Date: Negotiated Due Date:

OPP Target Date:

Fast Track: ☐ New Ingredient: ☐

Receipt Description:

Resubmission of application for additional use directions on citrus.
Original application not received by PM.
iv

New Ingredient Request Date:
New Ingredient Received Date:
Form A: ☐ Signature Date:
Form B: ☐ Signature Date:

Print Letter
Enter More Information
Tracking

Receipt Content

EPA-OPPIN Main - Co... 3:27 PM

27065

Receipt for Section 3

S: 777065 Resubmission: ☐ Yes ☒ No

Regulatory Type: Product Registration - Section 3 Fee For Service: ☒ Yes ☐ No

Application Type: Amendment Billable: ☐ Yes ☒ No

Company: 70506 UNITED PHOSPHORUS INC V

Risk Manager: Registration Division, Risk Management Team 13

Product #: 70506-57 Product Name: BIFENTURE EC AGRICULTURAL INSECTICIDE

Override#:

Me Too Section3: 279-3069 Me Too Product Name: CAPTURE 2 EC INSECTICIDE/MITICIDE

Application Date: 01-Apr-2005 iel OPP Rec'd Date: 05-Apr-2005 iel

Front End Date: 06-Apr-2005 iel Risk Manager Send Date: 07-Apr-2005 iel

FFS Due Date: 04-Jul-2005 Negotiated Due Date:

OPP Target Date:

Fast Track: ☒ New Ingredient: ☐

Receipt Description:

AMENDMENT TO PERMIT ADDITIONAL USE DIRECTIONS FOR USE ON CITRUS IN FLORIDA.

New Ingredient Request Date:

New Ingredient Received Date:

Form A: ☐ Signature Date:

Form B: ☐ Signature Date:

Print Letter

Enter More Information

Tracking

Receipt Content

EPA-OPPIN Main - Co... 3:36 PM

Fee for Service



This package includes the following

- ☐ New Registration
- ☒ Amendment

- ☐ Studies? ☐ Fee Waiver?
- ☐ volpay % Reduction: _____

for Division

- ☐ AD
- ☐ BPPD
- ☒ RD

Risk Mgr. 13

Receipt No.

S- 783014

EPA File Symbol/Reg. No.

70506-57

Pin-Punch Date:

8/17/05

☒ This item is NOT subject to FFS action.

Action Code:

Requested:

Granted:

Amount Due: \$ _____


Parent/Child Decisions:

Reviewer: J. Miller

Date: 8-18-05

Remarks:

NON - FEE

 United States Environmental Protection Agency Washington, DC 20460	<input type="checkbox"/> Registration <input checked="" type="checkbox"/> Amendment <input type="checkbox"/> Other	OPP Identifier Number <div style="font-size: 1.5em; margin-top: 10px;">274856</div>
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Application for Pesticide – Section I

1. Company/Product Number 70506-57 4. Company/Product (Name) United Phosphorus, Inc/Bifenture EC Agricultural Insecticide 5. Name and Address of Applicant (Include ZIP Code) United Phosphorus, Inc. 423 Riverview Plaza Trenton, NJ 08611 <input type="checkbox"/> Check if this is a new address	2. EPA Product Manager LaRocca PM # 13 6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg No. 279-3069 Product Name Capture 2EC Insecticide/Miticide
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Section - II

<input checked="" type="checkbox"/> Amendment – Explain below <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input type="checkbox"/> Notification – Explain below	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application <input type="checkbox"/> Other – Explain below
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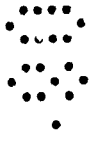
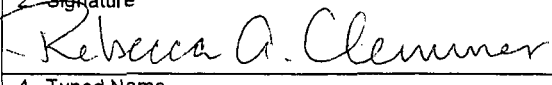
Explanation: Use additional page(s) if necessary. (For Section I and Section II.)

Amendment to permit additional use directions for use on Citrus in Florida.

Section III

1. Material This Product Will be Packaged in:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
*Certification must be submitted If "Yes" Unit Packaging wgt. No. per container		If "Yes" Package wgt. No. per container			
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of label directions <input type="checkbox"/> On Label <input type="checkbox"/> On Label accompanying product	
6. Manner in Which Label is Affixed to Product		<input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other _____			

Section IV

1. Contact Person (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)					
Name Rebecca A. Clemmer		Title Regulatory Affairs Manager		Telephone No. (Include Area Code) 609-392-8200	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law					6. Date Application Received (Stamped) 
2. Signature 		3. Title Regulatory Affairs Manager			
4. Typed Name Rebecca A. Clemmer		5. Date 4/1/05			



United Phosphorus, Inc.

423 Riverview Plaza
Trenton, NJ 08611
(609) 392-8200 x 18 (phone)
(609) 392-0808 (fax)

Rebecca A. Clemmer
Regulatory Affairs Manager

August 16, 2005

George LaRocca (PM 13)
Document Processing Desk (AMEND)
Office of Pesticide Programs (7504C)
U.S. Environmental Protection Agency
1801 Bell Street
Arlington, VA 22202

Re: RESUBMISSION of lost application
Bifenture™ EC Agricultural Insecticide (EPA Reg. No. 70506-57)
Application for Additional Use Directions on Citrus

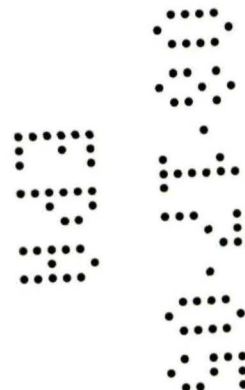
Dear Mr. LaRocca:

In response to a telephone call from Linda Deluise of your office, I am resubmitting the above application for an amendment to our Bifenture EC label. I understand that this application was lost, and will receive prompt attention at your end.

Please contact me if you have any questions.

Very truly yours,

Rebecca A. Clemmer
rclemmer@upi-usa.com





United Phosphorus, Inc.

423 Riverview Plaza
Trenton, NJ 08611
(609) 392-8200 x 18 (phone)
(609) 392-0808 (fax)

Rebecca A. Clemmer
Regulatory Affairs Manager

April 1, 2005

George LaRocca (PM 13)
Document Processing Desk (AMEND)
Office of Pesticide Programs (7504C)
U.S. Environmental Protection Agency
1801 Bell Street
Arlington, VA 22202

Re: Bifenture™ EC Agricultural Insecticide (EPA Reg. No. 70506-57)
Application for additional use directions on Citrus

Dear Mr. LaRocca:

United Phosphorus, Inc. is applying for approval of additional directions for use of the subject product on Citrus. The Citrus use directions on the currently approved label have not been accepted by the state of Florida (due to unique requirements there), and thus, in conjunction with the state, the attached use directions have been developed. The Supplemental Label we have developed will be in addition to the existing use directions and is not meant to replace them. It is substantially similar to supplemental labeling produced by FMC for its Capture 2EC product, EPA Registration No. 279-3069.

Enclosed in support of this action, please find the following:

- EPA form 8570-1;
- 1 copy of the complete product label with the new directions inserted, marked to show changes
- 5 copies of the complete product label with the new directions inserted;
- 5 copies of the Supplemental labeling by itself.

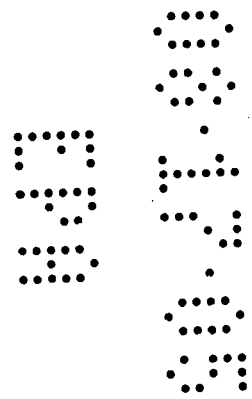
Because use on Citrus is already present on our approved label, no data compensation issues need to be addressed for this amendment. No data are being submitted for review, and this action does not fall under the requirements of PRIA.

Please contact me if you have any questions.

Very truly yours,

A handwritten signature in cursive script that reads 'Rebecca A. Clemmer'.

Rebecca A. Clemmer
rclemmer@upi-usa.com



- Marked copy -

RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.

For retail sale to and use only by certified applicators, or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

BIFENTURE™ EC AGRICULTURAL INSECTICIDE

BIFENTURE EC AGRICULTURAL INSECTICIDE IS NOT FOR SALE OR USE IN CALIFORNIA.

Active Ingredient:	By Wt.
Bifenthrin* (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate.....	25.1%
Inert Ingredients**:	74.9%
TOTAL	100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.

**Contain xylene range aromatic solvents

This product contains 2 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN

WARNING

AVISO

This label must be in the possession of the user at the time of application.

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID

If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give any liquid to the person.• Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.• Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN

This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided. Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
FOR EMERGENCY MEDICAL ASSISTANCE, CALL THE NATIONAL PESTICIDE INFORMATION CENTER 1-800-858-7378.

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident,
call CHEMTREC 1-800-424-9300.**



Manufactured for:
United Phosphorus, Inc.
423 Riverview Plaza • Trenton, NJ 08611
1-800-247-1557 • www.upi-usa.com

EPA Reg. No. 70506-57
EPA Est. No.
Net Contents:

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Warning

WARNING. May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Harmful if absorbed through skin or inhaled. Avoid breathing spray mist. Avoid contact with skin. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

Handlers who may be exposed to the dilute through application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber or Viton
- Shoes plus socks

Handlers who may be exposed to the concentrate through mixing, loading, application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber, or Viton
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

Physical/Chemical Hazards

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Resistance: Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities for details.

Bifenture EC Agricultural Insecticide MASTER LABEL

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control in your area.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Chemical-resistant gloves, such as barrier laminate or nitrile rubber or neoprene rubber or Viton.
- Shoes plus socks.

STORAGE AND DISPOSAL

Pesticide Storage: Do not freeze. Do not store below 40°F. If crystals are observed, warm material to above 60°F by placing in warm location. Shake or roll container periodically to redissolve solids.

Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

To Confine Spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Disposal: Metal or Plastic Container: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Returnable, Refillable Containers: Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

Chemigation Use Directions

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

For LEPA irrigation a minimum of 0.75 inch of water per acre is recommended. Where non-emulsified oils are used as the diluent, 1 to 2 pints per acre is recommended.

Results from utilizing chemigation have been variable and depend upon the set up and calibration of equipment. Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. Contact your State Agricultural Extension Service specialists, equipment manufacturers or other experts for consultation on the suitability of the equipment set up to obtain effective control of the target insect pests.

A person knowledgeable of the chemigation system and responsible for its operations, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent areas.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Bifenture EC Agricultural Insecticide should be applied continuously for the duration of the water application. Bifenture EC Agricultural Insecticide should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation, a minimum of 0.5 inch per acre of irrigation water is recommended. Agitation generally is not required when a suitable diluent is used. A diluent test should be conducted to ensure that phase separation will not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control.

Rotational Crops

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days after the last application.

Tank-Mixture

Bifenture EC Agricultural Insecticide may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products. Test for compatibility of products before mixing.

Application Instructions

Rate of application is variable according to pest pressure, timing of sprays, and field scouting. Use lower rates under light to moderate infestations; higher rates under heavy insect pressure and for mite control. Arid climates generally require higher rates.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip.

In New York State this product may not be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

Spray Drift Precautions

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES; RESERVOIRS; RIVERS; PERMANENT STREAMS; MARSHES OR NATURAL PONDS; ESTUARIES AND COMMERCIAL FISH FARM PONDS.

Do not apply by ground equipment within 25 feet, or by air within 150 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds. Increase the buffer zone to 450 feet when ultra low volume (ULV) application is made in cotton. Use of ultra low volume (ULV) application on corn and hops is prohibited.

For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.

Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.

Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

Make aerial or ground applications when the wind velocity favors on target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.

Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Do not cultivate within 10 feet of the aquatic areas so as to allow growth of a vegetative filter strip.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.

Do not make aerial or ground applications during temperature inversions. Do not make aerial or ground applications to corn if heavy rainfall is imminent. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

INDEX TO CROPS LISTED ON THIS LABEL

Artichokes

Brassicas

Caneberries

Canola, Crambe, Rapeseed

Citrus (Not for this use in Florida)

Citrus (For use in Florida only)

Cotton

Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (At Plant Use)

Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (PRE & PPI)

Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (Foliar Use)

Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (At Plant Use)

Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (Foliar Use)

Cucurbits

Eggplant

Grapes

Hops

Lettuce, Head

Pears

Peppers, Bell and Non-Bell

Spinach

Succulent Peas and Beans

Tomatoes

ARTICHOKES

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Artichoke Plume Moth Cribrate Weevil	0.10	6.4	<p>Apply when pest population reaches damaging threshold and repeat as necessary to maintain control, but not more often than 15 day intervals.</p> <p>Application by ground: Apply a full cover spray in a minimum of 75 gallons of finished spray per acre.</p> <p>Application by air: Apply specified dosage in a minimum of 10 gallons per acre.</p> <p>Do not exceed 0.5 lb. a.i. /A per season.</p> <p>A 5-day preharvest interval must be observed.</p>

BRASSICAS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Head and Stem Brassica Vegetables including: Broccoli Brussels Sprouts Cabbage Cauliflower Cavalo Broccolo Chinese Broccoli (gai lon, white flowering broccoli) Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy) Kohlrabi	Aphids Armyworms Corn Earworm Crickets Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Ground Beetles Imported Cabbageworm Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs Thrips Tobacco Budworm Whitefly Wireworm (Adults)	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not apply more than 0.5 lb a.i. (1 quart) per acre per season.</p> <p>Do not make more than 5 applications after bloom.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply within 7 days of harvest.</p>
	Banks Grass Mite Carmin Mite Lygus spp. Pacific Spider Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	

CANE BERRIES

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Caneberries including: Bingleberries Blackberries Dewberries Loganberries Lowberries Marionberries Ollalieberries Raspberries Youngberries	Leafrollers Orange Tortrix Root Weevils	0.05-0.10	3.2-6.4	<p>Apply by air or ground equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons per acre by air and 50 gallons per acre by ground).</p> <p>One application may be made pre-bloom and a second application may be made post bloom.</p> <p>Do not exceed 0.2 lb. a.i. /A per season.</p> <p>Do not apply within 3 days of harvest.</p>
	Spider Mites	0.10	6.4	

CANOLA, CRAMBE, RAPESEED

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Armyworms Cutworms Diamondback Moth Flea Beetle Flea Hopper Grasshopper Loopers Other Lepidopterous Larvae Plant Bug Seedpod Weevil Stink Bugs Thrips Whitefly	0.033-0.04	2.1-2.6	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not apply more than 0.08 lb. a.i. (5.12 ounces formulated product) per acre per season. Do not make applications less than 14 days apart.</p> <p>Do not apply within 35 days of harvest.</p>

CITRUS
(Not for this use in Florida)

PEST	DOSAGE	REMARKS AND RESTRICTIONS
<p>Asian Cockroach <i>Diaprepes</i> Root Weevil (<i>Diaprepes abbreviatus</i>) Fire Ants</p>	<p>16-32 ounces (0.25-0.50 lb. active) per acre</p>	<p>Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer.</p> <p>Peak emergence of <i>Diaprepes</i> root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of <i>Diaprepes</i> root weevil may also occur in the fall.</p> <p>If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 32 fluid ounces formulated product should be used to obtain the longest residual management of <i>Diaprepes</i> root weevil.</p> <p>If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 16 fluid ounces formulated product can be applied early season and 16 fluid ounces formulated product can be applied later in the season.</p> <p>If emergence extends beyond the residual protection of Bifenture EC, grower is advised to use additional management strategies (i.e. foliar adult control or soil larvae control such as nematodes). Contact your state agricultural Extension Specialist as to the recommendation suited for local conditions.</p> <p>Do not apply through irrigation systems.</p> <p>Do not allow any application of Bifenture EC to contact fruit or foliage.</p> <p>Do not apply more than a total of 32 fluid ounces of formulated product (0.5 lb. a.i.) per acre per year.</p> <p>Apply the specified dosage in a minimum of 30 gallons of finished spray per acre.</p> <p>Ground application only. Do not apply by air.</p> <p>Do not apply within 1 day of harvest.</p>

CITRUS
(for use in Florida)

PESTS	DOSAGE	REMARKS AND RESTRICTIONS
<u>Diaprepes Root Weevil</u> <u>(Diaprepes abbreviatus)</u> <u>Southern Blue Green Citrus</u> <u>Root Weevil</u> <u>(Pachnaeus litus)</u> <u>Blue Green Citrus Root</u> <u>Weevil</u> <u>(Pachnaeus opalus)</u> <u>Brown Leaf Notcher</u> <u>(Epicaerus mexicanus)</u> <u>Little Leaf Notcher</u> <u>(Artipus floridanus)</u>	16 – 32 fl oz (0.25 – 0.5 lb ai) per acre	<p>Apply BIFENTURE EC by ground equipment to bare soil beneath citrus trees. <u>BIFENTURE EC must be uniformly applied from the trunk to the drip line of the tree; apply in a minimum of 40 gallons of dilute spray per acre.</u></p> <p><u>Greater spray volume should insure greater uniformity of coverage. A pre- and post-application irrigation may aid in the uniformity of coverage as well.</u></p> <p><u>BIFENTURE EC protects citrus tree roots from Diaprepes and other citrus root weevil feeding by forming a barrier which provides contact activity on newly hatched larvae (neonates). As citrus root weevil eggs hatch in new foliage, neonates fall to the soil surface beneath the tree and come in contact with BIFENTURE EC as they attempt to burrow into the root zone. Disturbance of the soil beneath trees should be minimized.</u></p> <p><u>Timing of BIFENTURE EC applications is critical. Current information suggests that peak emergence of adult Diaprepes Weevil varies by citrus growing region and these emergence peaks can be dramatically affected by environmental factors, such as soil moisture.</u></p> <p><u>Typically, two peaks are observed for Diaprepes, first in spring then late summer or early fall. Southern Blue Green and Blue Green Citrus Weevils and Fuller Rose Beetle typically exhibit a single emergence peak in the spring. Brown and Little Leaf Notchers typically exhibit three emergence peaks, spring, summer, and fall. Since emergence varies seasonally and by location, timing of BIFENTURE EC application can be accurately forecast by observing adults. Adults are most active early morning and late afternoon; numbers can be estimated by trapping throughout spring and summer (emergence periods). Egg laying will occur for 8 to 10 weeks following adult emergence from the soil; larval invasion of the soil will begin 2-3 weeks following adult emergence. It is critical to have the BIFENTURE EC soil barrier in place prior to drop of the neonates.</u></p> <p><u>BIFENTURE EC is one of several effective tools in an integrated pest management program for Citrus Root Weevils. Application of BIFENTURE EC should be used in conjunction with good cultural practices, biological control of larvae and foliar control of adults. Consult local university extension personnel for current information to protect citrus trees from Citrus Root Weevils and other pests.</u></p>
<u>Fireant</u> <u>(Solenopsis spp.)</u> <u>Asian Cockroach</u> <u>(Blattella asahinae)</u>	6.4 – 16 fl oz (0.1 – 0.25 lb ai) per acre	

COTTON

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	0.02-0.10	1.3-6.4	<p>Bifenture EC may be applied in water or refined vegetable oil (soybean/cottonseed).</p> <p>Application in Water: Apply in a minimum of 5 gallons per acre with ground equipment or 1 gallon per acre by aircraft. When applying by air, 1 quart of emulsified oil may be substituted for one quart of water in the finished spray.</p>
Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm Whitefly Yellow Striped Armyworm	0.04-0.10	2.6-6.4	<p>ULV Application: Apply the recommended rate of Bifenture EC in refined vegetable oil in a minimum of 1 quart of finished spray per acre with aircraft calibrated to give adequate coverage.</p> <p>To Control Boll Weevil: Apply Bifenture EC at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.</p> <p>To Control Mites and Aphids: Apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is established.</p>
Beet Armyworm Carmine Spider Mite Lygus spp. Pink Bollworm Twospotted Spider Mite	0.06-0.10	3.8-6.4	<p>Do not apply more than 0.5 lb. a.i. per acre per season.</p> <p>Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include Ambush[®], Ammo[®], Asana[®] XL, Baythroid[®], Capture[®], Danitol[®], Karate[®], Mustang[®], and Scout X-TRA[®].</p> <p>Do not graze livestock in treated areas or cut treated crops for feed.</p> <p>Do not apply within 14 days of harvest.</p>

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(AT PLANT USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
Corn Rootworm, Larvae Northern Southern Western	0.0046 lb. a.i. per 1,000 linear feet of row	0.30 fluid ounces per 1,000 linear feet of row	<p>Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the Bifenture EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre.</p> <p>Mix Bifenture EC with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Bifenture EC then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.</p>
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 to 0.0046 lb. a.i. per 1,000 linear feet of row	0.15 to 0.30 fluid ounces per 1,000 linear feet of row	<p>Applications of Bifenture EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Bifenture EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.</p> <p>Do not apply to soil where there is greater than 30% cover of crop residue remaining.</p> <p>Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</p> <p>Do not apply more than 0.1 lb. active per acre per season as an at plant application.</p> <p>Do not apply within 30 days of harvest.</p>
Row Spacings (inches)			40 38 36 30
Bifenture EC (lb. a.i. per acre)			0.060 0.064 0.069 0.080
Bifenture EC (formulated product, ounces per acre)			3.9 4.1 4.4 5.12

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
Pre-Plant Incorporated (PPI) and Pre-Emergence (PRE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
Armyworm spp. Black Cutworm Seedcorn Maggot Stalkborer White Grub Wireworm	0.047 to 0.062 lb. a.i./A Pre- Plant Incorporated (PPI)	3 to 4 fl. oz./A Pre- Plant Incorporated (PPI)	The 3-4 oz./A rate must be applied as PPI and can be tankmixed and applied with PPI herbicides. Incorporation of Bifenture EC should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.
Armyworm spp. Black Cutworm Stalkborer	0.040 lb. a.i./A Pre- emergence (PRE)	2.56 fl. oz. /A Pre- emergence (PRE)	The 2.56 oz/A rate may be applied PRE and can be tankmixed and applied with PRE herbicides.

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(FOLIAR USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2-5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment. To improve control by aircraft, use 5 gallons of finished spray per acre particularly when initial populations are heavier than normal. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To Control Ear-Attacking Pests: Apply Bifenture EC just before silking and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make application for corn borer control with initial application at or shortly before egg hatch.</p> <p>For Control of Other Insect Pests: Apply when pests first appear and repeat as necessary.</p> <p>For Control of Mites: Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form prior to leaf damage or discoloration and before wide-spread mite dispersal throughout the canopy.</p> <p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 lb. a.i. per acre in tank mixture has demonstrated good control under these conditions.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	<p>For Mite Control in Texas, New Mexico, Oklahoma, and Arizona: Apply in a minimum of 5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment.</p> <p>Do not apply more than 0.3 lb. active per acre per season including PRE & PPI, at plant plus foliar applications.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of Bifenture EC Agricultural Insecticide on corn is prohibited in all coastal counties.</p> <p>Do not apply within 30 days of harvest.</p>

SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(AT PLANT USE)

PEST	DOSAGE		REMARKS AND RESTRICTIONS			
Corn Rootworm, Larvae Northern Southern Western	0.0046 lb. a.i. per 1,000 linear feet of row	0.30 fluid ounces per 1,000 linear feet of row	<p>Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the Bifenture EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre.</p> <p>Mix Bifenture EC with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Bifenture EC then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.</p>			
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 to 0.0046 lb. a.i. per 1,000 linear feet of row	0.15 to 0.30 fluid ounces per 1,000 linear feet of row	<p>Applications of Bifenture EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Bifenture EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.</p> <p>Do not apply to soil where there is greater than 30% cover of crop residue remaining.</p> <p>Do not apply within 30 days of harvest.</p> <p>Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</p> <p>Do not apply more than 0.1 lb. active per acre per season as an at plant application.</p>			
Row Spacings (inches)			40	38	36	30
Bifenture EC (lb. a.i. per acre)			0.060	0.064	0.069	0.080
Bifenture EC (formulated product, ounces per acre)			3.9	4.1	4.4	5.12

**SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(FOLIAR USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To Control Ear-Attacking Pests: Apply Bifenture EC when silking begins and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make 2 applications for corn borer control with the initial application at or shortly before egg hatch.</p> <p>For Control of Other Insect Pests: Apply when pests first appear and repeat as necessary.</p> <p>For Control of Mites: Apply for Banks Grass Mites control when colonies first form from prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	<p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress.</p> <p>Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated product) per acre per season.</p> <p>Do not graze livestock in treated areas of cut treated crops for feed within 1 day of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of Bifenture EC on corn is prohibited in all coastal counties.</p> <p>Do not apply within 1 day of harvest.</p>

CUCURBITS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB A/A	FL OZ/A	
Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Citron melon Cucumber Gherkin Gourd, edible (includes hyloan, cucuzza), (<i>Luffa</i> spp.) (includes hechima, Chinese okra), (<i>Momordica</i> spp.) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber) Muskmelon (hybrids and/or cultivars of <i>Cucumis melo</i>) (includes true cantaloupe, Cantaloupe, casaba, crenshaw melon, golden, pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon) Pumpkin (<i>Cucurbita</i> spp.) Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini) Squash, winter (includes butternut squash, calabaza, hubbard squash (<i>C. mixta</i> ; <i>C. pepo</i>), includes acorn squash, spaghetti squash) Watermelon (includes hybrids and or varieties of <i>Citrullis</i> spp.)	Aphids Armyworms Cabbage Looper Corn Earworm Cucumber Beetles Cutworm Grasshopper Leafhoppers Melonworm Pickleworm Plant Bug Rindworm Squash Bugs Squash Vine Borer Stink Bugs Tobacco Budworm	0.04-0.10	2.6-6.4	Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 20 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not apply more than 0.3 lb. a.i. (19.2 ounces formulated product) per acre per season. Do not make more than two applications after bloom. Do not make applications less than 7 days apart. Do not apply within 3 days of harvest.
	Carmine Mite Banks Grass Mite Lygus spp Twospotted Spider Mite Whitefly	0.08-0.10	5.12-6.4	

EGGPLANT

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Armyworms Colorado Potato Beetle Corn Earworm Cucumber Beetle European Corn Borer Flea Beetle Cabbage Looper Plant Bug Stink Bug Thrips Tomato Pinworm Tomato Hornworm Vegetable Leafminer Whitefly	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated product) per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>
Banks Grass Mite Carmine Mite Lygus spp. Pacific Spider Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	

GRAPES

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Eastern Grape Leafhopper Variegated Leafhopper Western Grape Leafhopper	0.05 to 0.10	3.2 to 6.4	<p>Apply in a minimum of 10 gallons of finished spray by air or in a minimum of 25 gallons of finished spray with ground equipment. When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray.</p>
Black Vine Weevil Glasywinged Sharpshooter Twospotted Spider Mite	0.10	6.4	<p>Thorough coverage is essential to achieve control.</p> <p>When pest pressure is moderate to severe, use higher rate.</p> <p>Do not apply more than 0.10 lb. a.i. per acre per season.</p> <p>Do not apply within 30 days of harvest.</p>

HOPS

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Armyworms Cutworms Leafrollers Loopers	0.06-0.1	3.8-6.4	<p>Do not exceed 0.1 lb. a.i. per acre per application.</p> <p>Do not exceed 0.3 lb. a.i. per acre per season.</p> <p>A spray interval of 21 days between applications must be maintained.</p>
Root Weevils	0.05-0.1	3.2-6.4	<p>A 14 day pre-harvest interval must be observed.</p>

Twospotted spider mite	0.1	6.4	<p>Application by ground: For best results, full coverage is essential. Early season recommend 100-150 gallons of spray per acre. Late season recommend 200-250 gallons of spray per acre.</p> <p>For Root Weevil control, make a directed spray to the base of the plant. Spray up the vine 3 feet and the soil surface 1.5 to 2 feet on either side of the plant.</p> <p>Application by air for late season control of twospotted spider mites: Apply no less than 6.4 oz (0.1 lb. a.i.) per application in a minimum of 10 gallons per acre.</p> <p>Use of ultra low volume (ULV) application on hops is prohibited.</p>
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LETTUCE, HEAD

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Armyworms Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink Bug spp. Tobacco Budworm Whitefly	0.033-0.10	2.1-6.4	<p>Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment and 5 gallons per acre by air. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not make applications less than 7 days apart.</p> <p>A maximum of 0.5 lb. a.i. may be applied per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>
Carmine Mite Lygus, spp. Twospotted Spider Mite	0.08-0.10	5.12-6.4	

PEARS

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Coddling Moth Cutworms Green Fruitworm Leafhoppers Leafminers Leafrollers Lygus spp. Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs	0.04 to 0.2	2.6 to 12.8	<p>Application by ground: Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray in sufficient water to provide thorough coverage.</p> <p>Application by air: Apply the specified dosage in a minimum of 10 gallons per acre by air.</p> <p>Do not apply more than 0.5 lb. active per acre per season with no more than 0.45 lb. active per acre applied after petal fall.</p> <p>Apply as necessary to maintain control using a minimum of 30 day spray interval.</p> <p>Do not graze livestock in treated orchards or cut treated cover crops for feed.</p> <p>Do not apply within 14 days of harvest.</p>

Tarnished Plant Bugs		
Twospotted Spider Mite	0.06 to 0.2	8.8 to 12.8
Yellow Mite		
European Red Mite	0.08 to 0.2	5.12 to 12.8

PEPPERS, BELL AND NON-BELL

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	0.033-0.1	2.1-6.4	Apply using sufficient water to obtain uniform coverage. Apply as needed. Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft. Do not make applications less than 7 days apart. Do not apply more than 0.20 lb. a.i. per acre per season. Do not apply within 7 days of harvest.
Broad Mite Carmine Mite Lygus spp. Twospotted Spider Mite	0.8-0.10	5.12-6.4	

SPINACH

PESTS	DOSAGE	REMARKS AND RESTRICTIONS
Armyworms Colorado Potato Beetle Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Tomato Pinworm Tomato Hornworm Thrips Whitefly	2.1 to 6.4 ounces (0.033 to 0.10 lb. active) per acre	For control of whiteflies apply foliar treatments of Bifenture EC by ground or air at rates of up to 0.4 pt. (0.1 lb. active) per acre at minimum 7-day intervals up to a maximum of 4 applications. For control of fire ants apply Bifenture EC to the soil (at planting) or as a foliar treatment by ground or air at rates of up to 0.4 pt. (0.1 lb. active) per acre at minimum 7-day intervals up to a maximum of 4 applications. Apply the specified dosage in 5-50 gallons of finished spray per acre by air or 10-50 gallons of finished spray per acre by ground. Do not make applications less than 7 days apart.
Broad Mite Banks Grass Mite Carmine Mite Fire Ants Lygus spp. Twospotted Spider Mite Pacific Spider Mite	5.12 to 6.4 ounces (0.08 to 0.10 lb. active) per acre	Do not apply more than 0.4 lb. a.i. per acre per season. Do not apply within 40 days of harvest.

SUCCULENT PEAS AND BEANS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Pea (Pisum spp.) Dwarf pea Edible-pod pea English pea Garden pea Green pea Snow pea Sugar snap pea Pigeon pea Bean (Phaseolus spp.): Broadbean (succulent) Lima bean (green) Runner bean Snap bean Wax bean Bean (Vigna spp.): Asparagus bean Blackeyed pea Chinese longbean Cowpeas Moth bean Southern pea Yardlong bean Jackbean Soybean (immature seed) Sword bean	Flea Beetle Grasshoppers Aster Leafhopper Leafhoppers Alfalfa Caterpillar Aphids Bean Leaf Beetle Beet Armyworm Cloverworm Corn Earworm Corn Rootworm (Adult) Cucumber Beetles Cutworms European Corn Borer Fall Armyworm Japanese Beetle (Adult) Loopers Pea Leaf Weevil Pea Weevil Plant Bug Sap Beetle Southern Armyworm Stink Bugs Tarnished Plant Bug Thrips Webworms Western Bean Cutworm Yellowstriped Armyworm Whitefly Banks Grass Mite Carmine Mite Lygus spp. Twospotted Spider Mite	0.025-0.10 <		

TOMATOES

PEST	DOSAGE	REMARKS AND RESTRICTIONS
Aphids Armyworms – Including: Beat Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm Bean Leaf Beetle Cabbageworm Carmine Mite Cloverworm Corn Earworm Corn Rootworm Cucumber Beetles Cutworms Diamondback Moth European Corn Borer Flea Beetles Flea Hopper Grasshopper Japanese Beetle (Adult) Leafhoppers Loopers Lygus spp. Melonworm Pea Weevil Pea Leaf Weevil Pickleworm Plant Bug Rindworm Salt Marsh Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink Bug spp. Tobacco Budworm Tarnished Plant Bug Thrips Two Spotted Spider Mite Whitefly	2.1-5.2 fluid ounces (0.033-0.08 lb. active) per acre	Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment. Thorough coverage is essential to achieve control. Do not make applications less than 10 days apart. A maximum of 4 applications may be applied per season. Do not apply within 1 day of harvest.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

United Phosphorus, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or United Phosphorus, Inc., and Buyer and User assume the risk of any such use. UNITED PHOSPHORUS, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent allowed by law, United Phosphorus, Inc. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UNITED PHOSPHORUS, INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UNITED PHOSPHORUS, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

United Phosphorus, Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of United Phosphorus, Inc..

Ammo, Capture, Mustang – trademarks of FMC Corporation
Ambush, Karate – trademarks of a Syngenta Group Company
Asana – trademark of E.I. duPont de Nemours & Company
Baythroid – trademark of Bayer
Danitol – trademark of Sumitomo Chemical Company, Ltd.
Scout Xtra – trademark of Hoechst Schering Agrevo S.A.

EPA Approved 8/25/04
Rev. 4/0511/04

RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.

For retail sale to and use only by certified applicators, or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

BIFENTURE™ EC AGRICULTURAL INSECTICIDE**BIFENTURE EC AGRICULTURAL INSECTICIDE IS NOT FOR SALE OR USE IN CALIFORNIA.**

Active Ingredient:	By Wt.
Bifenthrin* (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate.....	25.1%
Inert Ingredients**:	74.9%
TOTAL	100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.

**Contain xylene range aromatic solvents

This product contains 2 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN
WARNING
AVISO

This label must be in the possession of the user at the time of application.

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID

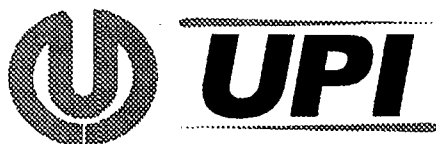
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give any liquid to the person.• Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.• Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN

This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided. Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
FOR EMERGENCY MEDICAL ASSISTANCE, CALL THE NATIONAL PESTICIDE INFORMATION CENTER 1-800-858-7378.

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident,
call **CHEMTREC 1-800-424-9300.**



Manufactured for:
United Phosphorus, Inc.
423 Riverview Plaza • Trenton, NJ 08611
1-800-247-1557 • www.upi-usa.com

EPA Reg. No. 70506-57
EPA Est. No.
Net Contents:

PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals
Warning

WARNING. May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Harmful if absorbed through skin or inhaled. Avoid breathing spray mist. Avoid contact with skin. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

Handlers who may be exposed to the dilute through application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber or Viton
- Shoes plus socks

Handlers who may be exposed to the concentrate through mixing, loading, application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber, or Viton
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

Physical/Chemical Hazards

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Resistance: Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities for details.

Bifenture EC Agricultural Insecticide MASTER LABEL

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control in your area.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Chemical-resistant gloves, such as barrier laminate or nitrile rubber or neoprene rubber or Viton.
- Shoes plus socks.

STORAGE AND DISPOSAL

Pesticide Storage: Do not freeze. Do not store below 40°F. If crystals are observed, warm material to above 60°F by placing in warm location. Shake or roll container periodically to redissolve solids.

Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

To Confine Spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Disposal: Metal or Plastic Container: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Returnable, Refillable Containers: Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

Chemigation Use Directions

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

For LEPA irrigation a minimum of 0.75 inch of water per acre is recommended. Where non-emulsified oils are used as the diluent, 1 to 2 pints per acre is recommended.

Results from utilizing chemigation have been variable and depend upon the set up and calibration of equipment. Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. Contact your State Agricultural Extension Service specialists, equipment manufacturers or other experts for consultation on the suitability of the equipment set up to obtain effective control of the target insect pests.

A person knowledgeable of the chemigation system and responsible for its operations, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent areas.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Bifenture EC Agricultural Insecticide should be applied continuously for the duration of the water application. Bifenture EC Agricultural Insecticide should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation, a minimum of 0.5 inch per acre of irrigation water is recommended. Agitation generally is not required when a suitable diluent is used. A diluent test should be conducted to ensure that phase separation will not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control.

Rotational Crops

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days after the last application.

Tank-Mixture

Bifenture EC Agricultural Insecticide may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products. Test for compatibility of products before mixing.

Application Instructions

Rate of application is variable according to pest pressure, timing of sprays, and field scouting. Use lower rates under light to moderate infestations; higher rates under heavy insect pressure and for mite control. Arid climates generally require higher rates.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip.

In New York State this product may not be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

Spray Drift Precautions

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES; RESERVOIRS; RIVERS; PERMANENT STREAMS; MARSHES OR NATURAL PONDS; ESTUARIES AND COMMERCIAL FISH FARM PONDS.

Do not apply by ground equipment within 25 feet, or by air within 150 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds. Increase the buffer zone to 450 feet when ultra low volume (ULV) application is made in cotton. Use of ultra low volume (ULV) application on corn and hops is prohibited.

For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.

Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.

Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

Make aerial or ground applications when the wind velocity favors on target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.

Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Do not cultivate within 10 feet of the aquatic areas so as to allow growth of a vegetative filter strip.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.

Do not make aerial or ground applications during temperature inversions. Do not make aerial or ground applications to corn if heavy rainfall is imminent. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

INDEX TO CROPS LISTED ON THIS LABEL

Artichokes
Brassicas
Caneberries
Canola, Crambe, Rapeseed
Citrus (Not for this use in Florida)
Citrus (For use in Florida only)
Cotton
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (At Plant Use)
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (PRE & PPI)
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (Foliar Use)
Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (At Plant Use)
Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (Foliar Use)
Cucurbits
Eggplant
Grapes
Hops
Lettuce, Head
Pears
Peppers, Bell and Non-Bell
Spinach
Succulent Peas and Beans
Tomatoes

ARTICHOKES

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Artichoke Plume Moth Cribrate Weevil	0.10	6.4	<p>Apply when pest population reaches damaging threshold and repeat as necessary to maintain control, but not more often than 15 day intervals.</p> <p>Application by ground: Apply a full cover spray in a minimum of 75 gallons of finished spray per acre.</p> <p>Application by air: Apply specified dosage in a minimum of 10 gallons per acre.</p> <p>Do not exceed 0.5 lb. a.i. /A per season.</p> <p>A 5-day preharvest interval must be observed.</p>

BRASSICAS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB A/A	FL OZ/A	
Head and Stem Brassica Vegetables including: Broccoli Brussels Sprouts Cabbage Cauliflower Cavalo Broccoli Chinese Broccoli (gai lon, white flowering broccoli) Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy) Kohlrabi	Aphids Armyworms Corn Earworm Crickets Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Ground Beetles Imported Cabbageworm Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs Thrips Tobacco Budworm Whitefly Wireworm (Adults)	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not apply more than 0.5 lb a.i. (1 quart) per acre per season.</p> <p>Do not make more than 5 applications after bloom.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply within 7 days of harvest.</p>
	Banks Grass Mite Carmine Mite Lygus spp. Pacific Spider Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	

CANE BERRIES

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Caneberries including: Bingleberries Blackberries Dewberries Loganberries Lowberries Marionberries Olallieberries Raspberries Youngberries	Leafrollers Orange Tortrix Root Weevils	0.05-0.10	3.2-6.4	<p>Apply by air or ground equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons per acre by air and 50 gallons per acre by ground).</p> <p>One application may be made pre-bloom and a second application may be made post bloom.</p> <p>Do not exceed 0.2 lb. a.i. /A per season.</p> <p>Do not apply within 3 days of harvest.</p>
	Spider Mites	0.10	6.4	

CANOLA, CRAMBE, RAPESEED

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Armyworms Cutworms Diamondback Moth Flea Beetle Flea Hopper Grasshopper Loopers Other Lepidopterous Larvae Plant Bug Seedpod Weevil Stink Bugs Thrips Whitefly	0.033-0.04	2.1-2.6	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not apply more than 0.08 lb. a.i. (5.12 ounces formulated product) per acre per season. Do not make applications less than 14 days apart.</p> <p>Do not apply within 35 days of harvest.</p>

CITRUS
(Not for this use in Florida)

PEST	DOSAGE	REMARKS AND RESTRICTIONS
<p>Asian Cockroach <i>Diaprepes</i> Root Weevil (<i>Diaprepes abbreviatus</i>) Fire Ants</p>	<p>16-32 ounces (0.25-0.50 lb. active) per acre</p>	<p>Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer.</p> <p>Peak emergence of <i>Diaprepes</i> root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of <i>Diaprepes</i> root weevil may also occur in the fall.</p> <p>If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 32 fluid ounces formulated product should be used to obtain the longest residual management of <i>Diaprepes</i> root weevil.</p> <p>If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 16 fluid ounces formulated product can be applied early season and 16 fluid ounces formulated product can be applied later in the season.</p> <p>If emergence extends beyond the residual protection of Bifenture EC, grower is advised to use additional management strategies (i.e. foliar adult control or soil larvae control such as nematodes). Contact your state agricultural Extension Specialist as to the recommendation suited for local conditions.</p> <p>Do not apply through irrigation systems.</p> <p>Do not allow any application of Bifenture EC to contact fruit or foliage.</p> <p>Do not apply more than a total of 32 fluid ounces of formulated product (0.5 lb. a.i.) per acre per year.</p> <p>Apply the specified dosage in a minimum of 30 gallons of finished spray per acre.</p> <p>Ground application only. Do not apply by air.</p> <p>Do not apply within 1 day of harvest.</p>

CITRUS
(for use in Florida)

PESTS	DOSAGE	REMARKS AND RESTRICTIONS
Diaprepes Root Weevil <i>(Diaprepes abbreviatus)</i> Southern Blue Green Citrus Root Weevil <i>(Pachnaeus litus)</i> Blue Green Citrus Root Weevil <i>(Pachnaeus opalus)</i> Brown Leaf Notcher <i>(Epicaerus mexicanus)</i> Little Leaf Notcher <i>(Artipus floridanus)</i>	16 – 32 fl oz (0.25 – 0.5 lb ai) per acre	<p>Apply BIFENTURE EC by ground equipment to bare soil beneath citrus trees. BIFENTURE EC must be uniformly applied from the trunk to the drip line of the tree; apply in a minimum of 40 gallons of dilute spray per acre.</p> <p>Greater spray volume should insure greater uniformity of coverage. A pre- and post-application irrigation may aid in the uniformity of coverage as well.</p> <p>BIFENTURE EC protects citrus tree roots from Diaprepes and other citrus root weevil feeding by forming a barrier which provides contact activity on newly hatched larvae (neonates). As citrus root weevil eggs hatch in new foliage, neonates fall to the soil surface beneath the tree and come in contact with BIFENTURE EC as they attempt to burrow into the root zone. Disturbance of the soil beneath trees should be minimized.</p> <p>Timing of BIFENTURE EC applications is critical. Current information suggests that peak emergence of adult Diaprepes Weevil varies by citrus growing region and these emergence peaks can be dramatically affected by environmental factors, such as soil moisture.</p> <p>Typically, two peaks are observed for Diaprepes, first in spring then late summer or early fall. Southern Blue Green and Blue Green Citrus Weevils and Fuller Rose Beetle typically exhibit a single emergence peak in the spring. Brown and Little Leaf Notchers typically exhibit three emergence peaks, spring, summer, and fall. Since emergence varies seasonally and by location, timing of BIFENTURE EC application can be accurately forecast by observing adults. Adults are most active early morning and late afternoon; numbers can be estimated by trapping throughout spring and summer (emergence periods). Egg laying will occur for 8 to 10 weeks following adult emergence from the soil; larval invasion of the soil will begin 2-3 weeks following adult emergence. It is critical to have the BIFENTURE EC soil barrier in place prior to drop of the neonates.</p> <p>BIFENTURE EC is one of several effective tools in an integrated pest management program for Citrus Root Weevils. Application of BIFENTURE EC should be used in conjunction with good cultural practices, biological control of larvae and foliar control of adults. Consult local university extension personnel for current information to protect citrus trees from Citrus Root Weevils and other pests.</p>
Fireant <i>(Solenopsis spp.)</i> Asian Cockroach <i>(Blattella asahinae)</i>	6.4 – 16 fl oz (0.1 – 0.25 lb ai) per acre	

COTTON

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	0.02-0.10	1.3-6.4	<p>Bifenture EC may be applied in water or refined vegetable oil (soybean/cottonseed).</p> <p>Application in Water: Apply in a minimum of 5 gallons per acre with ground equipment or 1 gallon per acre by aircraft. When applying by air, 1 quart of emulsified oil may be substituted for one quart of water in the finished spray.</p>
Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm Whitefly Yellow Striped Armyworm	0.04-0.10	2.6-6.4	<p>ULV Application: Apply the recommended rate of Bifenture EC in refined vegetable oil in a minimum of 1 quart of finished spray per acre with aircraft calibrated to give adequate coverage.</p> <p>To Control Boll Weevil: Apply Bifenture EC at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.</p> <p>To Control Mites and Aphids: Apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is established.</p>
Beet Armyworm Carmine Spider Mite Lygus spp. Pink Bollworm Twospotted Spider Mite	0.06-0.10	3.8-6.4	<p>Do not apply more than 0.5 lb. a.i. per acre per season.</p> <p>Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include Ambush®, Ammo®, Asana® XL, Baythroid®, Capture®, Danitol®, Karate®, Mustang®, and Scout X-TRA®.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed.</p> <p>Do not apply within 14 days of harvest.</p>

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(AT PLANT USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS			
Corn Rootworm, Larvae Northern Southern Western	0.0046 lb. a.i. per 1,000 linear feet of row	0.30 fluid ounces per 1,000 linear feet of row	<p>Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the Bifenture EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre.</p> <p>Mix Bifenture EC with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Bifenture EC then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.</p>			
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 to 0.0046 lb. a.i. per 1,000 linear feet of row	0.15 to 0.30 fluid ounces per 1,000 linear feet of row	<p>Applications of Bifenture EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Bifenture EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.</p> <p>Do not apply to soil where there is greater than 30% cover of crop residue remaining.</p> <p>Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</p> <p>Do not apply more than 0.1 lb. active per acre per season as an at plant application.</p> <p>Do not apply within 30 days of harvest.</p>			
Row Spacings (inches)			40	38	36	30
Bifenture EC (lb. a.i. per acre)			0.060	0.064	0.069	0.080
Bifenture EC (formulated product, ounces per acre)			3.9	4.1	4.4	5.12

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
Pre-Plant Incorporated (PPI) and Pre-Emergence (PRE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
Armyworm spp. Black Cutworm Seedcorn Maggot Stalkborer White Grub Wireworm	0.047 to 0.062 lb. a.i./A Pre- Plant Incorporated (PPI)	3 to 4 fl. oz./A Pre- Plant Incorporated (PPI)	The 3-4 oz./A rate must be applied as PPI and can be tankmixed and applied with PPI herbicides. Incorporation of Bifenture EC should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.
Armyworm spp. Black Cutworm Stalkborer	0.040 lb. a.i./A Pre- emergence (PRE)	2.56 fl. oz. /A Pre- emergence (PRE)	The 2.56 oz/A rate may be applied PRE and can be tankmixed and applied with PRE herbicides.

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(FOLIAR USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2-5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment. To improve control by aircraft, use 5 gallons of finished spray per acre particularly when initial populations are heavier than normal. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To Control Ear-Attacking Pests: Apply Bifenture EC just before silking and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make application for corn borer control with initial application at or shortly before egg hatch.</p> <p>For Control of Other Insect Pests: Apply when pests first appear and repeat as necessary.</p> <p>For Control of Mites: Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form prior to leaf damage or discoloration and before wide-spread mite dispersal throughout the canopy.</p> <p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 lb. a.i. per acre in tank mixture has demonstrated good control under these conditions.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	<p>For Mite Control in Texas, New Mexico, Oklahoma, and Arizona: Apply in a minimum of 5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment.</p> <p>Do not apply more than 0.3 lb. active per acre per season including PRE & PPI, at plant plus foliar applications.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of Bifenture EC Agricultural Insecticide on corn is prohibited in all coastal counties.</p> <p>Do not apply within 30 days of harvest.</p>

SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(AT PLANT USE)

PEST	DOSAGE		REMARKS AND RESTRICTIONS			
Corn Rootworm, Larvae Northern Southern Western	0.0046	0.30	<p>Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the Bifenture EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre.</p> <p>Mix Bifenture EC with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Bifenture EC then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.</p>			
	lb. a.i. per 1,000 linear feet of row	fluid ounces per 1,000 linear feet of row				
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023	0.15 to	<p>Applications of Bifenture EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Bifenture EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.</p> <p>Do not apply to soil where there is greater than 30% cover of crop residue remaining.</p> <p>Do not apply within 30 days of harvest.</p> <p>Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</p> <p>Do not apply more than 0.1 lb. active per acre per season as an at plant application.</p>			
	to	0.30				
	0.0046	fluid				
	lb. a.i.	ounces				
	per	per				
	1,000	1,000				
	linear	linear				
	feet of	feet of				
	row	row				
Row Spacings (inches)			40	38	36	30
Bifenture EC (lb. a.i. per acre)			0.060	0.064	0.069	0.080
Bifenture EC (formulated product, ounces per acre)			3.9	4.1	4.4	5.12

SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(FOLIAR USE)

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To Control Ear-Attacking Pests: Apply Bifenture EC when silking begins and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make 2 applications for corn borer control with the initial application at or shortly before egg hatch.</p> <p>For Control of Other Insect Pests: Apply when pests first appear and repeat as necessary.</p> <p>For Control of Mites: Apply for Banks Grass Mites control when colonies first form from prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	<p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress.</p> <p>Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated product) per acre per season.</p> <p>Do not graze livestock in treated areas of cut treated crops for feed within 1 day of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of Bifenture EC on corn is prohibited in all coastal counties.</p> <p>Do not apply within 1 day of harvest.</p>

CUCURBITS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB A/I/A	FL OZ/A	
Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Citron melon Cucumber Gherkin Gourd, edible (includes hyloan, cucuzza), (<i>Luffa</i> spp.) (includes hechima, Chinese okra), (<i>Momordica</i> spp.) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber) Muskmelon (hybrids and/or cultivars of <i>Cucumis melo</i>) (includes true cantaloupe, Cantaloupe, casaba, crenshaw melon, golden, pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon) Pumpkin (<i>Cucurbita</i> spp.) Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini) Squash, winter (includes butternut squash, calabaza, hubbard squash (<i>C. mixta</i> ; <i>C. pepo</i>), includes acorn squash, spaghetti squash) Watermelon (includes hybrids and or varieties of <i>Citrullis</i> spp.)	Aphids Armyworms Cabbage Looper Corn Earworm Cucumber Beetles Cutworm Grasshopper Leafhoppers Melonworm Pickleworm Plant Bug Rindworm Squash Bugs Squash Vine Borer Stink Bugs Tobacco Budworm	0.04-0.10	2.6-6.4	Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 20 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not apply more than 0.3 lb. a.i. (19.2 ounces formulated product) per acre per season. Do not make more than two applications after bloom. Do not make applications less than 7 days apart. Do not apply within 3 days of harvest.
	Carmin Mite Banks Grass Mite Lygus spp Twospotted Spider Mite Whitefly	0.08-0.10	5.12-6.4	

EGGPLANT

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Armyworms Colorado Potato Beetle Corn Earworm Cucumber Beetle European Corn Borer Flea Beetle Cabbage Looper Plant Bug Stink Bug Thrips Tomato Pinworm Tomato Hornworm Vegetable Leafminer Whitefly	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated product) per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>
Banks Grass Mite Carmin Mite Lygus spp. Pacific Spider Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	

GRAPES

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Eastern Grape Leafhopper Variegated Leafhopper Western Grape Leafhopper	0.05 to 0.10	3.2 to 6.4	<p>Apply in a minimum of 10 gallons of finished spray by air or in a minimum of 25 gallons of finished spray with ground equipment. When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray.</p>
Black Vine Weevil Glaswinged Sharpshooter Twospotted Spider Mite	0.10	6.4	<p>Thorough coverage is essential to achieve control.</p> <p>When pest pressure is moderate to severe, use higher rate.</p> <p>Do not apply more than 0.10 lb. a.i. per acre per season.</p> <p>Do not apply within 30 days of harvest.</p>

HOPS

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Armyworms Cutworms Leafrollers Loopers	0.06-0.1	3.8-6.4	<p>Do not exceed 0.1 lb. a.i. per acre per application.</p> <p>Do not exceed 0.3 lb. a.i. per acre per season.</p> <p>A spray interval of 21 days between applications must be maintained.</p>
Root Weevils	0.05-0.1	3.2-6.4	<p>A 14 day pre-harvest interval must be observed.</p>

Twospotted spider mite	0.1	6.4	<p>Application by ground: For best results, full coverage is essential. Early season recommend 100-150 gallons of spray per acre. Late season recommend 200-250 gallons of spray per acre.</p> <p>For Root Weevil control, make a directed spray to the base of the plant. Spray up the vine 3 feet and the soil surface 1.5 to 2 feet on either side of the plant.</p> <p>Application by air for late season control of twospotted spider mites: Apply no less than 6.4 oz (0.1 lb. a.i.) per application in a minimum of 10 gallons per acre.</p> <p>Use of ultra low volume (ULV) application on hops is prohibited.</p>
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LETTUCE, HEAD

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Armyworms Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink Bug spp. Tobacco Budworm Whitefly	0.033-0.10	2.1-6.4	<p>Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment and 5 gallons per acre by air. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not make applications less than 7 days apart.</p> <p>A maximum of 0.5 lb. a.i. may be applied per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>
Carmine Mite Lygus, spp. Twospotted Spider Mite	0.08-0.10	5.12-6.4	

PEARS

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Coddling Moth Cutworms Green Fruitworm Leafhoppers Leafminers Leafrollers Lygus spp. Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs	0.04 to 0.2	2.6 to 12.8	<p>Application by ground: Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray in sufficient water to provide thorough coverage.</p> <p>Application by air: Apply the specified dosage in a minimum of 10 gallons per acre by air.</p> <p>Do not apply more than 0.5 lb. active per acre per season with no more than 0.45 lb. active per acre applied after petal fall.</p> <p>Apply as necessary to maintain control using a minimum of 30 day spray interval.</p> <p>Do not graze livestock in treated orchards or cut treated cover crops for feed.</p> <p>Do not apply within 14 days of harvest.</p>

Tarnished Plant Bugs			
Twospotted Spider Mite	0.06 to 0.2	8.8 to 12.8	
Yellow Mite			
European Red Mite	0.08 to 0.2	5.12 to 12.8	

PEPPERS, BELL AND NON-BELL

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	0.033-0.1	2.1-6.4	Apply using sufficient water to obtain uniform coverage. Apply as needed. Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft. Do not make applications less than 7 days apart. Do not apply more than 0.20 lb. a.i. per acre per season. Do not apply within 7 days of harvest.
Broad Mite Carmine Mite Lygus spp. Twospotted Spider Mite	0.8-0.10	5.12-6.4	

SPINACH

PESTS	DOSAGE	REMARKS AND RESTRICTIONS
Armyworms Colorado Potato Beetle Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Tomato Pinworm Tomato Hornworm Thrips Whitefly	2.1 to 6.4 ounces (0.033 to 0.10 lb. active) per acre	For control of whiteflies apply foliar treatments of Bifenture EC by ground or air at rates of up to 0.4 pt. (0.1 lb. active) per acre at minimum 7-day intervals up to a maximum of 4 applications. For control of fire ants apply Bifenture EC to the soil (at planting) or as a foliar treatment by ground or air at rates of up to 0.4 pt. (0.1 lb. active) per acre at minimum 7-day intervals up to a maximum of 4 applications. Apply the specified dosage in 5-50 gallons of finished spray per acre by air or 10-50 gallons of finished spray per acre by ground. Do not make applications less than 7 days apart.
Broad Mite Banks Grass Mite Carmine Mite Fire Ants Lygus spp. Twospotted Spider Mite Pacific Spider Mite	5.12 to 6.4 ounces (0.08 to 0.10 lb. active) per acre	Do not apply more than 0.4 lb. a.i. per acre per season. Do not apply within 40 days of harvest.

SUCCULENT PEAS AND BEANS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB A/A	FL OZ/A	
Pea (Pisum spp.)	Flea Beetle	0.025-0.10	1.6-6.4	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.
Dwarf pea	Grasshoppers			
Edible-pod pea	Aster			
English pea	Leafhopper			
Garden pea	Leafhoppers	0.033-0.10	2.1-6.4	Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated product) per acre per season. Do not apply within 3 days of harvest.
Green pea	Alfalfa			
Snow pea	Caterpillar			
Sugar snap pea	Aphids			
Pigeon pea	Bean Leaf			
Bean (Phaseolus spp.):	Beetle			
Broadbean	Beet Armyworm			
(succulent)	Cloverworm			
Lima bean	Corn Earworm			
(green)	Corn Rootworm			
Runner bean	(Adult)			
Snap bean	Cucumber			
Wax bean	Beetles			
Bean (Vigna spp.):	Cutworms			
Asparagus bean	European Corn			
Blackeyed pea	Borer			
Chinese longbean	Fall Armyworm			
Cowpeas	Japanese Beetle			
Moth bean	(Adult)			
Southern pea	Loopers			
Yardlong bean	Pea Leaf Weevil			
Jackbean	Pea Weevil			
Soybean	Plant Bug			
(immature seed)	Sap Beetle			
Sword bean	Southern			
	Armyworm			
	Stink Bugs			
	Tarnished Plant			
	Bug			
	Thrips			
	Webworms			
	Western Bean			
	Cutworm			
	Yellowstriped			
	Armyworm			
	Whitefly			
	Banks Grass	0.08-0.10	5.12-6.4	
	Mite			
	Carmine Mite			
	Lygus spp.			
	Twospotted			
	Spider Mite			

TOMATOES

PEST	DOSAGE	REMARKS AND RESTRICTIONS
Aphids Armyworms – Including: Beat Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm Bean Leaf Beetle Cabbageworm Carmin Mite Cloverworm Corn Earworm Corn Rootworm Cucumber Beetles Cutworms Diamondback Moth European Corn Borer Flea Beetles Flea Hopper Grasshopper Japanese Beetle (Adult) Leafhoppers Loopers Lygus spp. Melonworm Pea Weevil Pea Leaf Weevil Pickleworm Plant Bug Rindworm Salt Marsh Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink Bug spp. Tobacco Budworm Tarnished Plant Bug Thrips Two Spotted Spider Mite Whitefly	2.1-5.2 fluid ounces (0.033-0.08 lb. active) per acre	Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment. Thorough coverage is essential to achieve control. Do not make applications less than 10 days apart. A maximum of 4 applications may be applied per season. Do not apply within 1 day of harvest.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

United Phosphorus, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or United Phosphorus, Inc., and Buyer and User assume the risk of any such use. **UNITED PHOSPHORUS, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

To the extent allowed by law, United Phosphorus, Inc. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UNITED PHOSPHORUS, INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UNITED PHOSPHORUS, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

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Scout Xtra – trademark of Hoechst Schering Agrevo S.A.

Rev. 4/05

RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.

For retail sale to and use only by certified applicators, or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

BIFENTURE™ EC AGRICULTURAL INSECTICIDE**BIFENTURE EC AGRICULTURAL INSECTICIDE IS NOT FOR SALE OR USE IN CALIFORNIA.**

Active Ingredient:	By Wt.
Bifenthrin* (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate.....	25.1%
Inert Ingredients**:	74.9%
TOTAL	100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.

**Contain xylene range aromatic solvents

This product contains 2 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN**WARNING****AVISO**

This label must be in the possession of the user at the time of application.

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID

If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give any liquid to the person.• Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.• Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN

This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided. Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
FOR EMERGENCY MEDICAL ASSISTANCE, CALL THE NATIONAL PESTICIDE INFORMATION CENTER 1-800-858-7378.

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident,
call CHEMTREC 1-800-424-9300.



Manufactured for:
United Phosphorus, Inc.
423 Riverview Plaza • Trenton, NJ 08611
1-800-247-1557 • www.upi-usa.com

EPA Reg. No. 70506-57
EPA Est. No.
Net Contents:

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Warning

WARNING. May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Harmful if absorbed through skin or inhaled. Avoid breathing spray mist. Avoid contact with skin. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

Handlers who may be exposed to the dilute through application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber or Viton
- Shoes plus socks

Handlers who may be exposed to the concentrate through mixing, loading, application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber, or Viton
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

Physical/Chemical Hazards

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Resistance: Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities for details.

Bifenture EC Agricultural Insecticide MASTER LABEL

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control in your area.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Chemical-resistant gloves, such as barrier laminate or nitrile rubber or neoprene rubber or Viton.
- Shoes plus socks.

STORAGE AND DISPOSAL

Pesticide Storage: Do not freeze. Do not store below 40°F. If crystals are observed, warm material to above 60°F by placing in warm location. Shake or roll container periodically to redissolve solids.

Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

To Confine Spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Disposal: Metal or Plastic Container: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Returnable, Refillable Containers: Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

Chemigation Use Directions

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

For LEPA irrigation a minimum of 0.75 inch of water per acre is recommended. Where non-emulsified oils are used as the diluent, 1 to 2 pints per acre is recommended.

Results from utilizing chemigation have been variable and depend upon the set up and calibration of equipment. Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. Contact your State Agricultural Extension Service specialists, equipment manufacturers or other experts for consultation on the suitability of the equipment set up to obtain effective control of the target insect pests.

A person knowledgeable of the chemigation system and responsible for its operations, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent areas.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Bifenture EC Agricultural Insecticide should be applied continuously for the duration of the water application. Bifenture EC Agricultural Insecticide should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation, a minimum of 0.5 inch per acre of irrigation water is recommended. Agitation generally is not required when a suitable diluent is used. A diluent test should be conducted to ensure that phase separation will not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control.

Rotational Crops

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days after the last application.

Tank-Mixture

Bifenture EC Agricultural Insecticide may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products. Test for compatibility of products before mixing.

Application Instructions

Rate of application is variable according to pest pressure, timing of sprays, and field scouting. Use lower rates under light to moderate infestations; higher rates under heavy insect pressure and for mite control. Arid climates generally require higher rates.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip.

In New York State this product may not be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

Spray Drift Precautions

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES; RESERVOIRS; RIVERS; PERMANENT STREAMS; MARSHES OR NATURAL PONDS; ESTUARIES AND COMMERCIAL FISH FARM PONDS.

Do not apply by ground equipment within 25 feet, or by air within 150 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds. Increase the buffer zone to 450 feet when ultra low volume (ULV) application is made in cotton. Use of ultra low volume (ULV) application on corn and hops is prohibited.

For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.

Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.

Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

Make aerial or ground applications when the wind velocity favors on target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.

Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Do not cultivate within 10 feet of the aquatic areas so as to allow growth of a vegetative filter strip.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.

Do not make aerial or ground applications during temperature inversions. Do not make aerial or ground applications to corn if heavy rainfall is imminent. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

INDEX TO CROPS LISTED ON THIS LABEL

Artichokes
Brassicas
Caneberries
Canola, Crambe, Rapeseed
Citrus (Not for this use in Florida)
Citrus (For use in Florida only)
Cotton
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (At Plant Use)
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (PRE & PPI)
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (Foliar Use)
Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (At Plant Use)
Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (Foliar Use)
Cucurbits
Eggplant
Grapes
Hops
Lettuce, Head
Pears
Peppers, Bell and Non-Bell
Spinach
Succulent Peas and Beans
Tomatoes

ARTICHOKES

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Artichoke Plume Moth Cribrate Weevil	0.10	6.4	<p>Apply when pest population reaches damaging threshold and repeat as necessary to maintain control, but not more often than 15 day intervals.</p> <p>Application by ground: Apply a full cover spray in a minimum of 75 gallons of finished spray per acre.</p> <p>Application by air: Apply specified dosage in a minimum of 10 gallons per acre.</p> <p>Do not exceed 0.5 lb. a.i. /A per season.</p> <p>A 5-day preharvest interval must be observed.</p>

BRASSICAS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Head and Stem Brassica Vegetables including: Broccoli Brussels Sprouts Cabbage Cauliflower Cavalo Broccolo Chinese Broccoli (gai lon, white flowering broccoli) Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy) Kohlrabi	Aphids Armyworms Corn Earworm Crickets Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Ground Beetles Imported Cabbageworm Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs Thrips Tobacco Budworm Whitefly Wireworm (Adults)	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not apply more than 0.5 lb a.i. (1 quart) per acre per season.</p> <p>Do not make more than 5 applications after bloom.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply within 7 days of harvest.</p>
	Banks Grass Mite Carmin Mite Lygus spp. Pacific Spider Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	

CANE BERRIES

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Caneberries including: Bingleberries Blackberries Dewberries Loganberries Lowberries Marionberries Ollalieberries Raspberries Youngberries	Leafrollers Orange Tortrix Root Weevils	0.05-0.10	3.2-6.4	Apply by air or ground equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons per acre by air and 50 gallons per acre by ground). One application may be made pre-bloom and a second application may be made post bloom. Do not exceed 0.2 lb. a.i. /A per season. Do not apply within 3 days of harvest.
	Spider Mites	0.10	6.4	

CANOLA, CRAMBE, RAPESEED

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Armyworms Cutworms Diamondback Moth Flea Beetle Flea Hopper Grasshopper Loopers Other Lepidopterous Larvae Plant Bug Seedpod Weevil Stink Bugs Thrips Whitefly	0.033-0.04	2.1-2.6	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not apply more than 0.08 lb. a.i. (5.12 ounces formulated product) per acre per season. Do not make applications less than 14 days apart. Do not apply within 35 days of harvest.

CITRUS

(Not for this use in Florida)

PEST	DOSAGE	REMARKS AND RESTRICTIONS
Asian Cockroach <i>Diaprepes</i> Root Weevil (<i>Diaprepes abbreviatus</i>) Fire Ants	16-32 ounces (0.25-0.50 lb. active) per acre	<p>Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer.</p> <p>Peak emergence of <i>Diaprepes</i> root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of <i>Diaprepes</i> root weevil may also occur in the fall.</p> <p>If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 32 fluid ounces formulated product should be used to obtain the longest residual management of <i>Diaprepes</i> root weevil.</p> <p>If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 16 fluid ounces formulated product can be applied early season and 16 fluid ounces formulated product can be applied later in the season.</p> <p>If emergence extends beyond the residual protection of Bifenture EC, grower is advised to use additional management strategies (i.e. foliar adult control or soil larvae control such as nematodes). Contact your state agricultural Extension Specialist as to the recommendation suited for local conditions.</p> <p>Do not apply through irrigation systems.</p> <p>Do not allow any application of Bifenture EC to contact fruit or foliage.</p> <p>Do not apply more than a total of 32 fluid ounces of formulated product (0.5 lb. a.i.) per acre per year.</p> <p>Apply the specified dosage in a minimum of 30 gallons of finished spray per acre.</p> <p>Ground application only. Do not apply by air.</p> <p>Do not apply within 1 day of harvest.</p>

CITRUS
(for use in Florida)

PESTS	DOSAGE	REMARKS AND RESTRICTIONS
Diaprepes Root Weevil (<i>Diaprepes abbreviatus</i>) Southern Blue Green Citrus Root Weevil (<i>Pachnaeus litus</i>) Blue Green Citrus Root Weevil (<i>Pachnaeus opalus</i>) Brown Leaf Notcher (<i>Epicaerus mexicanus</i>) Little Leaf Notcher (<i>Artipus floridanus</i>)	16 – 32 fl oz (0.25 – 0.5 lb ai) per acre	<p>Apply BIFENTURE EC by ground equipment to bare soil beneath citrus trees. BIFENTURE EC must be uniformly applied from the trunk to the drip line of the tree; apply in a minimum of 40 gallons of dilute spray per acre.</p> <p>Greater spray volume should insure greater uniformity of coverage. A pre- and post-application irrigation may aid in the uniformity of coverage as well.</p> <p>BIFENTURE EC protects citrus tree roots from Diaprepes and other citrus root weevil feeding by forming a barrier which provides contact activity on newly hatched larvae (neonates). As citrus root weevil eggs hatch in new foliage, neonates fall to the soil surface beneath the tree and come in contact with BIFENTURE EC as they attempt to burrow into the root zone. Disturbance of the soil beneath trees should be minimized.</p> <p>Timing of BIFENTURE EC applications is critical. Current information suggests that peak emergence of adult Diaprepes Weevil varies by citrus growing region and these emergence peaks can be dramatically affected by environmental factors, such as soil moisture.</p> <p>Typically, two peaks are observed for Diaprepes, first in spring then late summer or early fall. Southern Blue Green and Blue Green Citrus Weevils and Fuller Rose Beetle typically exhibit a single emergence peak in the spring. Brown and Little Leaf Notchers typically exhibit three emergence peaks, spring, summer, and fall. Since emergence varies seasonally and by location, timing of BIFENTURE EC application can be accurately forecast by observing adults. Adults are most active early morning and late afternoon; numbers can be estimated by trapping throughout spring and summer (emergence periods). Egg laying will occur for 8 to 10 weeks following adult emergence from the soil; larval invasion of the soil will begin 2-3 weeks following adult emergence. It is critical to have the BIFENTURE EC soil barrier in place prior to drop of the neonates.</p> <p>BIFENTURE EC is one of several effective tools in an integrated pest management program for Citrus Root Weevils. Application of BIFENTURE EC should be used in conjunction with good cultural practices, biological control of larvae and foliar control of adults. Consult local university extension personnel for current information to protect citrus trees from Citrus Root Weevils and other pests.</p>
Fireant (<i>Solenopsis spp.</i>) Asian Cockroach (<i>Blattella asahinae</i>)	6.4 – 16 fl oz (0.1 – 0.25 lb ai) per acre	

COTTON

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	0.02-0.10	1.3-6.4	<p>Bifenture EC may be applied in water or refined vegetable oil (soybean/cottonseed).</p> <p>Application in Water: Apply in a minimum of 5 gallons per acre with ground equipment or 1 gallon per acre by aircraft. When applying by air, 1 quart of emulsified oil may be substituted for one quart of water in the finished spray.</p>
Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm Whitefly Yellow Striped Armyworm	0.04-0.10	2.6-6.4	<p>ULV Application: Apply the recommended rate of Bifenture EC in refined vegetable oil in a minimum of 1 quart of finished spray per acre with aircraft calibrated to give adequate coverage.</p> <p>To Control Boll Weevil: Apply Bifenture EC at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.</p> <p>To Control Mites and Aphids: Apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is established.</p>
Beet Armyworm Carmine Spider Mite Lygus spp. Pink Bollworm Twospotted Spider Mite	0.06-0.10	3.8-6.4	<p>Do not apply more than 0.5 lb. a.i. per acre per season.</p> <p>Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include Ambush[®], Ammo[®], Asana[®] XL, Baythroid[®], Capture[®], Danitol[®], Karate[®], Mustang[®], and Scout X-TRA[®].</p> <p>Do not graze livestock in treated areas or cut treated crops for feed.</p> <p>Do not apply within 14 days of harvest.</p>

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(AT PLANT USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS			
Corn Rootworm, Larvae Northern Southern Western	0.0046 lb. a.i. per 1,000 linear feet of row	0.30 fluid ounces per 1,000 linear feet of row	<p>Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the Bifenture EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre.</p> <p>Mix Bifenture EC with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Bifenture EC then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.</p>			
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 to 0.0046 lb. a.i. per 1,000 linear feet of row	0.15 to 0.30 fluid ounces per 1,000 linear feet of row	<p>Applications of Bifenture EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Bifenture EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.</p> <p>Do not apply to soil where there is greater than 30% cover of crop residue remaining.</p> <p>Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</p> <p>Do not apply more than 0.1 lb. active per acre per season as an at plant application.</p> <p>Do not apply within 30 days of harvest.</p>			
Row Spacings (inches)			40	38	36	30
Bifenture EC (lb. a.i. per acre)			0.060	0.064	0.069	0.080
Bifenture EC (formulated product, ounces per acre)			3.9	4.1	4.4	5.12

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
Pre-Plant Incorporated (PPI) and Pre-Emergence (PRE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
Armyworm spp. Black Cutworm Seedcorn Maggot Stalkborer White Grub Wireworm	0.047 to 0.062 lb. a.i./A Pre- Plant Incorporated (PPI)	3 to 4 fl. oz./A Pre- Plant Incorporated (PPI)	The 3-4 oz./A rate must be applied as PPI and can be tankmixed and applied with PPI herbicides. Incorporation of Bifenture EC should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.
Armyworm spp. Black Cutworm Stalkborer	0.040 lb. a.i./A Pre- emergence (PRE)	2.56 fl. oz. /A Pre- emergence (PRE)	The 2.56 oz./A rate may be applied PRE and can be tankmixed and applied with PRE herbicides.

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(FOLIAR USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2-5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment. To improve control by aircraft, use 5 gallons of finished spray per acre particularly when initial populations are heavier than normal. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To Control Ear-Attacking Pests: Apply Bifenture EC just before silking and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make application for corn borer control with initial application at or shortly before egg hatch.</p> <p>For Control of Other Insect Pests: Apply when pests first appear and repeat as necessary.</p> <p>For Control of Mites: Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form prior to leaf damage or discoloration and before wide-spread mite dispersal throughout the canopy.</p> <p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 lb. a.i. per acre in tank mixture has demonstrated good control under these conditions.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	<p>For Mite Control in Texas, New Mexico, Oklahoma, and Arizona: Apply in a minimum of 5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment.</p> <p>Do not apply more than 0.3 lb. active per acre per season including PRE & PPI, at plant plus foliar applications.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of Bifenture EC Agricultural Insecticide on corn is prohibited in all coastal counties.</p> <p>Do not apply within 30 days of harvest.</p>

SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(AT PLANT USE)

PEST	DOSAGE		REMARKS AND RESTRICTIONS			
Corn Rootworm, Larvae Northern Southern Western	0.0046 lb. a.i. per 1,000 linear feet of row	0.30 fluid ounces per 1,000 linear feet of row	<p>Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the Bifenture EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre.</p> <p>Mix Bifenture EC with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Bifenture EC then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.</p>			
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 to 0.0046 lb. a.i. per 1,000 linear feet of row	0.15 to 0.30 fluid ounces per 1,000 linear feet of row	<p>Applications of Bifenture EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Bifenture EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.</p> <p>Do not apply to soil where there is greater than 30% cover of crop residue remaining.</p> <p>Do not apply within 30 days of harvest.</p> <p>Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</p> <p>Do not apply more than 0.1 lb. active per acre per season as an at plant application.</p>			
Row Spacings (inches)			40	38	36	30
Bifenture EC (lb. a.i. per acre)			0.060	0.064	0.069	0.080
Bifenture EC (formulated product, ounces per acre)			3.9	4.1	4.4	5.12

SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(FOLIAR USE)

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To Control Ear-Attacking Pests: Apply Bifenture EC when silking begins and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make 2 applications for corn borer control with the initial application at or shortly before egg hatch.</p> <p>For Control of Other Insect Pests: Apply when pests first appear and repeat as necessary.</p> <p>For Control of Mites: Apply for Banks Grass Mites control when colonies first form from prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	<p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress.</p> <p>Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated product) per acre per season.</p> <p>Do not graze livestock in treated areas of cut treated crops for feed within 1 day of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of Bifenture EC on corn is prohibited in all coastal counties.</p> <p>Do not apply within 1 day of harvest.</p>

CUCURBITS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB A/A	FL OZ/A	
Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Citron melon Cucumber Gherkin Gourd, edible (includes hyloan, cucuzza), (<i>Luffa</i> spp.) (includes hechima, Chinese okra), (<i>Momordica</i> spp.) (includes balsam apple, balsam pear; bitter melon, Chinese cucumber) Muskmelon (hybrids and/or cultivars of <i>Cucumis melo</i>) (includes true cantaloupe, Cantaloupe, casaba, crenshaw melon, golden, pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon) Pumpkin (<i>Cucurbita</i> spp.) Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini) Squash, winter (includes butternut squash, calabaza, hubbard squash (<i>C. mixta</i> ; <i>C. pepo</i>), includes acorn squash, spaghetti squash) Watermelon (includes hybrids and or varieties of <i>Citrullis</i> spp.)	Aphids Armyworms Cabbage Looper Corn Earworm Cucumber Beetles Cutworm Grasshopper Leafhoppers Melonworm Pickleworm Plant Bug Rindworm Squash Bugs Squash Vine Borer Stink Bugs Tobacco Budworm Carmine Mite Banks Grass Mite Lygus spp Twospotted Spider Mite Whitefly	0.04-0.10 		

EGGPLANT

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Armyworms Colorado Potato Beetle Corn Earworm Cucumber Beetle European Corn Borer Flea Beetle Cabbage Looper Plant Bug Stink Bug Thrips Tomato Pinworm Tomato Hornworm Vegetable Leafminer Whitefly	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated product) per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>
Banks Grass Mite Carmine Mite Lygus spp. Pacific Spider Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	

GRAPES

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Eastern Grape Leafhopper Variegated Leafhopper Western Grape Leafhopper	0.05 to 0.10	3.2 to 6.4	<p>Apply in a minimum of 10 gallons of finished spray by air or in a minimum of 25 gallons of finished spray with ground equipment. When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray.</p>
Black Vine Weevil Glaswinged Sharpshooter Twospotted Spider Mite	0.10	6.4	<p>Thorough coverage is essential to achieve control.</p> <p>When pest pressure is moderate to severe, use higher rate.</p> <p>Do not apply more than 0.10 lb. a.i. per acre per season.</p> <p>Do not apply within 30 days of harvest.</p>

HOPS

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Armyworms Cutworms Leafrollers Loopers	0.06-0.1	3.8-6.4	<p>Do not exceed 0.1 lb. a.i. per acre per application.</p> <p>Do not exceed 0.3 lb. a.i. per acre per season.</p> <p>A spray interval of 21 days between applications must be maintained.</p>
Root Weevils	0.05-0.1	3.2-6.4	<p>A 14 day pre-harvest interval must be observed.</p>

Twospotted spider mite	0.1	6.4	<p>Application by ground: For best results, full coverage is essential. Early season recommend 100-150 gallons of spray per acre. Late season recommend 200-250 gallons of spray per acre.</p> <p>For Root Weevil control, make a directed spray to the base of the plant. Spray up the vine 3 feet and the soil surface 1.5 to 2 feet on either side of the plant.</p> <p>Application by air for late season control of twospotted spider mites: Apply no less than 6.4 oz (0.1 lb. a.i.) per application in a minimum of 10 gallons per acre.</p> <p>Use of ultra low volume (ULV) application on hops is prohibited.</p>
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LETTUCE, HEAD

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Armyworms Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink Bug spp. Tobacco Budworm Whitefly	0.033-0.10	2.1-6.4	<p>Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment and 5 gallons per acre by air. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not make applications less than 7 days apart.</p> <p>A maximum of 0.5 lb. a.i. may be applied per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>
Carmine Mite Lygus, spp. Twospotted Spider Mite	0.08-0.10	5.12-6.4	

PEARS

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Coddling Moth Cutworms Green Fruitworm Leafhoppers Leafminers Leafrollers Lygus spp. Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs	0.04 to 0.2	2.6 to 12.8	<p>Application by ground: Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray in sufficient water to provide thorough coverage.</p> <p>Application by air: Apply the specified dosage in a minimum of 10 gallons per acre by air.</p> <p>Do not apply more than 0.5 lb. active per acre per season with no more than 0.45 lb. active per acre applied after petal fall.</p> <p>Apply as necessary to maintain control using a minimum of 30 day spray interval.</p> <p>Do not graze livestock in treated orchards or cut treated cover crops for feed.</p> <p>Do not apply within 14 days of harvest.</p>

Tarnished Plant Bugs			
Twospotted Spider Mite	0.06 to 0.2	8.8 to 12.8	
Yellow Mite			
European Red Mite	0.08 to 0.2	5.12 to 12.8	

PEPPERS, BELL AND NON-BELL

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	0.033-0.1	2.1-6.4	Apply using sufficient water to obtain uniform coverage. Apply as needed. Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft. Do not make applications less than 7 days apart. Do not apply more than 0.20 lb. a.i. per acre per season. Do not apply within 7 days of harvest.
Broad Mite Carmine Mite Lygus spp. Twospotted Spider Mite	0.8-0.10	5.12-6.4	

SPINACH

PESTS	DOSAGE	REMARKS AND RESTRICTIONS
Armyworms Colorado Potato Beetle Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Tomato Pinworm Tomato Hornworm Thrips Whitefly	2.1 to 6.4 ounces (0.033 to 0.10 lb. active) per acre	For control of whiteflies apply foliar treatments of Bifenture EC by ground or air at rates of up to 0.4 pt. (0.1 lb. active) per acre at minimum 7-day intervals up to a maximum of 4 applications. For control of fire ants apply Bifenture EC to the soil (at planting) or as a foliar treatment by ground or air at rates of up to 0.4 pt. (0.1 lb. active) per acre at minimum 7-day intervals up to a maximum of 4 applications. Apply the specified dosage in 5-50 gallons of finished spray per acre by air or 10-50 gallons of finished spray per acre by ground. Do not make applications less than 7 days apart.
Broad Mite Banks Grass Mite Carmine Mite Fire Ants Lygus spp. Twospotted Spider Mite Pacific Spider Mite	5.12 to 6.4 ounces (0.08 to 0.10 lb. active) per acre	Do not apply more than 0.4 lb. a.i. per acre per season. Do not apply within 40 days of harvest.

SUCCULENT PEAS AND BEANS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Pea (Pisum spp.)	Flea Beetle	0.025-0.10	1.6-6.4	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.
Dwarf pea	Grasshoppers			
Edible-pod pea	Aster			
English pea	Leafhopper			
Garden pea	Leafhoppers			
Green pea	Alfalfa	0.033-0.10	2.1-6.4	Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated product) per acre per season. Do not apply within 3 days of harvest.
Snow pea	Caterpillar			
Sugar snap pea	Aphids			
Pigeon pea	Bean Leaf			
Bean (Phaseolus spp.):	Beetle			
Broadbean	Beet Armyworm			
(succulent)	Cloverworm			
Lima bean	Corn Earworm			
(green)	Corn Rootworm			
Runner bean	(Adult)			
Snap bean	Cucumber			
Wax bean	Beetles			
Bean (Vigna spp.):	Cutworms			
Asparagus bean	European Corn			
Blackeyed pea	Borer			
Chinese longbean	Fall Armyworm			
Cowpeas	Japanese Beetle			
Moth bean	(Adult)			
Southern pea	Loopers			
Yardlong bean	Pea Leaf Weevil			
Jackbean	Pea Weevil			
Soybean	Plant Bug			
(immature seed)	Sap Beetle			
Sword bean	Southern			
	Armyworm			
	Stink Bugs			
	Tarnished Plant			
	Bug			
	Thrips			
	Webworms			
	Western Bean			
	Cutworm			
	Yellowstriped			
	Armyworm			
	Whitefly			
	Banks Grass	0.08-0.10	5.12-6.4	
	Mite			
	Carmine Mite			
	Lygus spp.			
	Twospotted			
	Spider Mite			

TOMATOES

PEST	DOSAGE	REMARKS AND RESTRICTIONS
<p>Aphids</p> <p>Armyworms – Including:</p> <p> Beat Armyworm, Fall</p> <p> Armyworm, Southern</p> <p> Yellowstriped Armyworm</p> <p>Bean Leaf Beetle</p> <p>Cabbageworm</p> <p>Carmine Mite</p> <p>Cloverworm</p> <p>Corn Earworm</p> <p>Corn Rootworm</p> <p>Cucumber Beetles</p> <p>Cutworms</p> <p>Diamondback Moth</p> <p>European Corn Borer</p> <p>Flea Beetles</p> <p>Flea Hopper</p> <p>Grasshopper</p> <p>Japanese Beetle (Adult) *</p> <p>Leafhoppers</p> <p>Loopers</p> <p>Lygus spp.</p> <p>Melonworm</p> <p>Pea Weevil</p> <p>Pea Leaf Weevil</p> <p>Pickleworm</p> <p>Plant Bug</p> <p>Rindworm</p> <p>Salt Marsh Caterpillar</p> <p>Sap Beetle</p> <p>Seedpod Weevil</p> <p>Squash Bugs</p> <p>Stink Bug spp.</p> <p>Tobacco Budworm</p> <p>Tarnished Plant Bug</p> <p>Thrips</p> <p>Two Spotted Spider Mite</p> <p>Whitefly</p>	<p>2.1-5.2 fluid ounces (0.033-0.08 lb. active) per acre</p>	<p>Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment.</p> <p>Thorough coverage is essential to achieve control.</p> <p>Do not make applications less than 10 days apart.</p> <p>A maximum of 4 applications may be applied per season.</p> <p>Do not apply within 1 day of harvest.</p>

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

United Phosphorus, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or United Phosphorus, Inc., and Buyer and User assume the risk of any such use. **UNITED PHOSPHORUS, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

To the extent allowed by law, United Phosphorus, Inc. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UNITED PHOSPHORUS, INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UNITED PHOSPHORUS, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

United Phosphorus, Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of United Phosphorus, Inc..

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Rev. 4/05

RESTRICTED USE PESTICIDE
Toxic to fish and aquatic organisms.
For retail sale to and use only by certified applicators, or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

BIFENTURE™ EC AGRICULTURAL INSECTICIDE

EPA Reg. No. 70506-57

SUPPLEMENTAL LABEL FOR USE ON CITRUS IN THE STATE OF FLORIDA

Active Ingredient:	By Wt.
Bifenthrin* (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate.....	25.1%
Inert Ingredients**:	74.9%
TOTAL.....	100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.

**Contain xylene range aromatic solvents

This product contains 2 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN WARNING AVISO

This label must be in the possession of the user at the time of application.

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read and follow all applicable precautionary statements, use directions, and restrictions on the federally registered BIFENTURE EC label.

CITRUS

PESTS	APPLICATION RATE	DIRECTIONS FOR USE
Diaprepes Root Weevil (<i>Diaprepes abbreviatus</i>) Southern Blue Green Citrus Root Weevil (<i>Pachnaeus litus</i>) Blue Green Citrus Root Weevil (<i>Pachnaeus opalus</i>) Brown Leaf Notcher (<i>Epicaerus mexicanus</i>) Little Leaf Notcher (<i>Artipus floridanus</i>)	16 – 32 fl oz. (0.25 – 0.5 l b a) per acre	Apply BIFENTURE EC by ground equipment to bare soil beneath citrus trees. BIFENTURE EC must be uniformly applied from the trunk to the drip line of the tree; apply in a minimum of 40 gallons of dilute spray per acre. Greater spray volume should insure greater uniformity of coverage. A pre- and post-application irrigation may aid in the uniformity of coverage as well. BIFENTURE EC protects citrus tree roots from Diaprepes and other citrus root weevil feeding by forming a barrier which provides contact activity on newly hatched larvae (neonates). As citrus root weevil eggs hatch in new foliage, neonates fall to the soil surface beneath the tree and come in contact with BIFENTURE EC as they attempt to burrow into the root zone. Disturbance of the soil beneath trees should be minimized. Timing of BIFENTURE EC applications is critical.
Fireant (<i>Solenopsis spp.</i>) Asian Cockroach (<i>Blattella asahinae</i>)	6.4 – 16 fl oz (0.1 – 0.25 l b a) per acre	

	<p>Current information suggests that peak emergence of adult Diaprepes Weevil varies by citrus growing region and these emergence peaks can be dramatically affected by environmental factors, such as soil moisture.</p> <p>Typically, two peaks are observed for Diaprepes, first in spring then late summer or early fall. Southern Blue Green and Blue Green Citrus Weevils and Fuller Rose Beetle typically exhibit a single emergence peak in the spring. Brown and Little Leaf Notchers typically exhibit three emergence peaks, spring, summer, and fall. Since emergence varies seasonally and by location, timing of BIFENTURE EC application can be accurately forecast by observing adults. Adults are most active early morning and late afternoon; numbers can be estimated by trapping throughout spring and summer (emergence periods). Egg laying will occur for 8 to 10 weeks following adult emergence from the soil; larval invasion of the soil will begin 2-3 weeks following adult emergence. It is critical to have the BIFENTURE EC soil barrier in place prior to drop of the neonates.</p> <p>BIFENTURE EC is one of several effective tools in an integrated pest management program for Citrus Root Weevils. Application of BIFENTURE EC should be used in conjunction with good cultural practices, biological control of larvae and foliar control of adults. Consult local university extension personnel for current information to protect citrus trees from Citrus Root Weevils and other pests.</p>
<p>Additional instructions:</p> <p>Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer.</p> <p>Peak emergence of Diaprepes root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of Diaprepes root weevil may also occur in the fall. If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 32 fl oz formulated product should be used to obtain the longest residual management of Diaprepes root weevil.</p> <p>If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 16 fl oz formulated product can be applied early season and 16 fl oz formulated product can be applied later in the season.</p>	
<p>Do not apply through irrigation systems.</p> <p>Do not apply within one day of harvest.</p> <p>Do not allow any application of BIFENTURE EC to contact fruit or foliage.</p> <p>Do not apply more than a total of 32 fl oz of formulated product (0.5 lb ai) per acre per year.</p> <p>Apply the specified dosage in a minimum of 40 gallons of finished spray per acre.</p> <p>Ground application only. Do not apply by air.</p>	



United Phosphorus, Inc.
423 Riverview Plaza
Trenton, NJ 08611
1-800-247-1557
www.upi-usa.com

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EPA Reg. No. 70506-57

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*Cis isomers 97% minimum, trans isomers 3% maximum.

**Contain xylene range aromatic solvents

This product contains 2 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN**WARNING****AVISO**

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CITRUS

PESTS	APPLICATION RATE	DIRECTIONS FOR USE
Diaprepes Root Weevil (<i>Diaprepes abbreviatus</i>) Southern Blue Green Citrus Root Weevil (<i>Pachnaeus litus</i>) Blue Green Citrus Root Weevil (<i>Pachnaeus opalus</i>) Brown Leaf Notcher (<i>Epicaerus mexicanus</i>) Little Leaf Notcher (<i>Artipus floridanus</i>)	16 – 32 fl oz (0.25 – 0.5 l b al) per acre	Apply BIFENTURE EC by ground equipment to bare soil beneath citrus trees. BIFENTURE EC must be uniformly applied from the trunk to the drip line of the tree; apply in a minimum of 40 gallons of dilute spray per acre. Greater spray volume should insure greater uniformity of coverage. A pre- and post-application irrigation may aid in the uniformity of coverage as well. BIFENTURE EC protects citrus tree roots from Diaprepes and other citrus root weevil feeding by forming a barrier which provides contact activity on newly hatched larvae (neonates). As citrus root weevil eggs hatch in new foliage, neonates fall to the soil surface beneath the tree and come in contact with BIFENTURE EC as they attempt to burrow into the root zone. Disturbance of the soil beneath trees should be minimized. Timing of BIFENTURE EC applications is critical.
Fireant (<i>Solenopsis spp.</i>) Asian Cockroach (<i>Blattella asahinae</i>)	6.4 – 16 fl oz (0.1 – 0.25 l b al) per acre	

	<p>Current information suggests that peak emergence of adult Diaprepes Weevil varies by citrus growing region and these emergence peaks can be dramatically affected by environmental factors, such as soil moisture.</p> <p>Typically, two peaks are observed for Diaprepes, first in spring then late summer or early fall. Southern Blue Green and Blue Green Citrus Weevils and Fuller Rose Beetle typically exhibit a single emergence peak in the spring. Brown and Little Leaf Notchers typically exhibit three emergence peaks, spring, summer, and fall. Since emergence varies seasonally and by location, timing of BIFENTURE EC application can be accurately forecast by observing adults. Adults are most active early morning and late afternoon; numbers can be estimated by trapping throughout spring and summer (emergence periods). Egg laying will occur for 8 to 10 weeks following adult emergence from the soil; larval invasion of the soil will begin 2-3 weeks following adult emergence. It is critical to have the BIFENTURE EC soil barrier in place prior to drop of the neonates.</p> <p>BIFENTURE EC is one of several effective tools in an integrated pest management program for Citrus Root Weevils. Application of BIFENTURE EC should be used in conjunction with good cultural practices, biological control of larvae and foliar control of adults. Consult local university extension personnel for current information to protect citrus trees from Citrus Root Weevils and other pests.</p>
<p>Additional instructions:</p> <p>Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer.</p> <p>Peak emergence of Diaprepes root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of Diaprepes root weevil may also occur in the fall. If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 32 fl oz formulated product should be used to obtain the longest residual management of Diaprepes root weevil.</p> <p>If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 16 fl oz formulated product can be applied early season and 16 fl oz formulated product can be applied later in the season.</p> <p>Do not apply through irrigation systems.</p> <p>Do not apply within one day of harvest.</p> <p>Do not allow any application of BIFENTURE EC to contact fruit or foliage.</p> <p>Do not apply more than a total of 32 fl oz of formulated product (0.5 lb ai) per acre per year.</p> <p>Apply the specified dosage in a minimum of 40 gallons of finished spray per acre.</p> <p>Ground application only. Do not apply by air.</p>	



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Inert Ingredients:**

74.9%

TOTAL.....

100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.

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Read and follow all applicable precautionary statements, use directions, and restrictions on the federally registered BIFENTURE EC label.**CITRUS**

PESTS	APPLICATION RATE	DIRECTIONS FOR USE
Diaprepes Root Weevil (<i>Diaprepes abbreviatus</i>) Southern Blue Green Citrus Root Weevil (<i>Pachnaeus litus</i>) Blue Green Citrus Root Weevil (<i>Pachnaeus opalus</i>) Brown Leaf Notcher (<i>Epicaerus mexicanus</i>) Little Leaf Notcher (<i>Artipus floridanus</i>)	16 – 32 fl oz (0.25 – 0.5 l b a) per acre	Apply BIFENTURE EC by ground equipment to bare soil beneath citrus trees. BIFENTURE EC must be uniformly applied from the trunk to the drip line of the tree; apply in a minimum of 40 gallons of dilute spray per acre. Greater spray volume should insure greater uniformity of coverage. A pre- and post-application irrigation may aid in the uniformity of coverage as well. BIFENTURE EC protects citrus tree roots from Diaprepes and other citrus root weevil feeding by forming a barrier which provides contact activity on newly hatched larvae (neonates). As citrus root weevil eggs hatch in new foliage, neonates fall to the soil surface beneath the tree and come in contact with BIFENTURE EC as they attempt to burrow into the root zone. Disturbance of the soil beneath trees should be minimized. Timing of BIFENTURE EC applications is critical.
Fireant (<i>Solenopsis spp.</i>) Asian Cockroach (<i>Blattella asahinae</i>)	6.4 – 16 fl oz (0.1 – 0.25 l b a) per acre	

	<p>Current information suggests that peak emergence of adult Diaprepes Weevil varies by citrus growing region and these emergence peaks can be dramatically affected by environmental factors, such as soil moisture.</p> <p>Typically, two peaks are observed for Diaprepes, first in spring then late summer or early fall. Southern Blue Green and Blue Green Citrus Weevils and Fuller Rose Beetle typically exhibit a single emergence peak in the spring. Brown and Little Leaf Notchers typically exhibit three emergence peaks, spring, summer, and fall. Since emergence varies seasonally and by location, timing of BIFENTURE EC application can be accurately forecast by observing adults. Adults are most active early morning and late afternoon; numbers can be estimated by trapping throughout spring and summer (emergence periods). Egg laying will occur for 8 to 10 weeks following adult emergence from the soil; larval invasion of the soil will begin 2-3 weeks following adult emergence. It is critical to have the BIFENTURE EC soil barrier in place prior to drop of the neonates.</p> <p>BIFENTURE EC is one of several effective tools in an integrated pest management program for Citrus Root Weevils. Application of BIFENTURE EC should be used in conjunction with good cultural practices, biological control of larvae and foliar control of adults. Consult local university extension personnel for current information to protect citrus trees from Citrus Root Weevils and other pests.</p>
<p>Additional instructions:</p> <p>Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer.</p> <p>Peak emergence of Diaprepes root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of Diaprepes root weevil may also occur in the fall. If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 32 fl oz formulated product should be used to obtain the longest residual management of Diaprepes root weevil.</p> <p>If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 16 fl oz formulated product can be applied early season and 16 fl oz formulated product can be applied later in the season.</p> <p>Do not apply through irrigation systems.</p> <p>Do not apply within one day of harvest.</p> <p>Do not allow any application of BIFENTURE EC to contact fruit or foliage.</p> <p>Do not apply more than a total of 32 fl oz of formulated product (0.5 fl ai) per acre per year.</p> <p>Apply the specified dosage in a minimum of 40 gallons of finished spray per acre.</p> <p>Ground application only. Do not apply by air.</p>	



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RESTRICTED USE PESTICIDE
Toxic to fish and aquatic organisms.
For retail sale to and use only by certified applicators, or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

BIFENTURE™ EC AGRICULTURAL INSECTICIDE

EPA Reg. No. 70506-57

SUPPLEMENTAL LABEL FOR USE ON CITRUS IN THE STATE OF FLORIDA

Active Ingredient:	By Wt.
Bifenthrin* (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate.....	25.1%
Inert Ingredients**:	74.9%
TOTAL	100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.

**Contain xylene range aromatic solvents

This product contains 2 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN **WARNING** **AVISO**

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Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
 (If you do not understand the label, find someone to explain it to you in detail.)

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CITRUS

PESTS	APPLICATION RATE	DIRECTIONS FOR USE
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EPA Reg. No. 70506-57

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CITRUS

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

FEB 21 2006

Rebecca A. Clemmer
United Phosphorus, Inc.
423 Riverview Plaza
Trenton, NJ 08611

Subject: Amendment - Copyright infringement
Bifenture EC Agricultural Insecticide
EPA Reg. No. 70506-57
Your Letter Dated August 31, 2005

Dear Ms. Clemmer:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable subject to the comments listed below. Two (2) copies of the finished labeling must be submitted prior to releasing the product for shipment. A stamped copy of the label is enclosed for your records.

1. On page 4 change "You should contact" to "Contact your State Agricultural etc" and change, "User should comply with", to "Observe all application directions etc".
2. On page 5 reinstate "Avoid applications when wind gusts approach 15 mph", and reinstate "Do not make aerial or ground application to corn if heavy rainfall is imminent". This limitation applies to all corn applications.
3. On page 6 restate the statement to read, "Cultivation within 10 feet of a water body is prohibited to allow for the growth a vegetated filter strip". This is a mandatory statement.
4. On page 12 and 16 add, "as a 5 to 7 inch T band" to the corn rootworm application instructions.

5. The interval between application are mandatory statements. Therefore change, "Repeat applications" to "Do not make applications less than ____ days apart" throughout the crop application instructions as appropriate.

If you have any questions regarding this action, please contact BeWanda Alexander of my team at (703) 305-7460.

Sincerely,

A handwritten signature in cursive script, appearing to read "BeWanda Alexander for", written over the typed name.

George T. LaRocca
Product Manager (13)
Insecticide Branch
Registration Division (7505C)

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BIFENTURE™ EC AGRICULTURAL INSECTICIDE

BIFENTURE EC AGRICULTURAL INSECTICIDE IS NOT FOR SALE OR USE IN CALIFORNIA.

Active Ingredient:	By Wt.
Bifenthrin* (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate	25.1%
Inert Ingredients**:	74.9%
TOTAL	100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.

**Contain xylene range aromatic solvents

This product contains 2 pounds active ingredient per gallon.

**ACCEPTED
with COMMENTS
in EPA Letter Dated
FEB 21 2006**
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.

70506-57

KEEP OUT OF REACH OF CHILDREN WARNING AVISO

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FIRST AID	
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give any liquid to the person.• Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.• Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
NOTE TO PHYSICIAN This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided. Contains petroleum distillates. Vomiting may cause aspiration pneumonia. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR EMERGENCY MEDICAL ASSISTANCE, CALL THE NATIONAL PESTICIDE INFORMATION CENTER 1-800-858-7378.	

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident,
call CHEMTREC 1-800-424-9300.**



Manufactured for:
United Phosphorus, Inc.
423 Riverview Plaza • Trenton, NJ 08611
1-800-247-1557 • www.upi-usa.com

EPA Reg. No. 70506-57
EPA Est. No.
Net Contents:

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Warning

WARNING. May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Harmful if absorbed through skin or inhaled. Avoid breathing spray mist. Avoid contact with skin. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

Handlers who may be exposed to the dilute through application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber or Viton
- Shoes plus socks

Handlers who may be exposed to the concentrate through mixing, loading, application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber, or Viton
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

Physical/Chemical Hazards

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Resistance:

BIFENTURE is an insecticide. Any insect/mite population may contain individual insects that may develop resistance to a specific pesticide product used in consecutive generations to control these pests. Prediction of resistance development is uncertain. Appropriate Bifenture EC Agricultural Insecticide Rev. 3-05

resistance management strategies should be followed. Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or Integrated Pest Management recommendations for the specific site and pest problems in your area.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during restricted-entry interval (REI) of **12** hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Chemical-resistant gloves, such as barrier laminate or nitrile rubber or neoprene rubber or Viton.
- Shoes plus socks.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store above 40°F.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Disposal: Metal or Plastic Container: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Returnable, Refillable Containers: Refillable/re-usable containers should be returned to the point of purchase for cleaning and refilling because the container must be thoroughly cleaned before refilling.

Chemigation Use Directions

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

Use a minimum of 0.75 inch of water per acre for LEPA irrigation . Use 1 to 2 pints per Acre of non-emulsified oils when used as the diluent.

The set up and calibration of chemigation equipment are important to achieve control of target insect pests. . Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. You should contact your State Agricultural Extension Service specialists, equipment manufacturers or other experts for advice on the suitability of the equipment set up for optimum control of the target insect pests.

A person knowledgeable of the chemigation system and responsible for its operations, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent areas.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Apply Bifenture EC Agricultural Insecticide continuously for the duration of the water application. Dilute Bifenture EC Agricultural Insecticide in sufficient volume to ensure accurate application over the area to be treated. Use a minimum of 0.5 inch per acre of irrigation water for application by chemigation. No agitation is required if a suitable diluent is used. Conduct a diluent test to check that phase separation will not occur during dilution and application. If uniform dilution is not achieved during the entire period of application, undesirable residues or less than desirable control may occur.

Rotation Crop Restrictions

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days after the last application.

Tank-Mixes

Apply Bifenture EC Agricultural Insecticide with other products registered for the same crops. User should comply with all application directions, restrictions, and precautions on the EPA-registered labels for other tank mix partners.

Spray Drift Precautions

Maintain and calibrate all aerial and ground application equipment using appropriate carriers.

WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS (LAKES, RESERVOIRS, RIVERS, PERMANENT STREAMS, MARSHES, NATURAL PONDS, ESTUARIES OR COMMERCIAL FISH FARM PONDS OBSERVE THESE PRECAUTIONS:.

- Do not apply by ground equipment within 25 feet, or by air within 150 feet of aquatic areas. The buffer zone must be increased to 450 feet when ultra low volume (ULV) application is made in cotton. Do not use ultra low volume (ULV) applications to corn and hops.
- When applied by air, mount the spray boom on the aircraft to minimize drift caused by rotor vortices or wingtip. Use the minimum practical boom length which must not exceed 75% of wing span or rotor diameter.
- Select the appropriate nozzle sizes to form the largest spray droplets that provide sufficient coverage and control. Minimize the formation of very small droplets by pointing the nozzles away from the air stream , and by avoiding excessive spray boom pressure.

Do not apply the spray at heights greater than 10 feet above the crop canopy, but at the lowest height to ensure pest control and flight safety.

Apply by air or ground when wind speed is between 3 and 10 mph, and not greater than 15 mph.

- Do not apply when wind is blowing towards the aquatic area.
- Allow a 10 foot vegetative filter strip to grow between the aquatic areas and the treated crop.
- Do not spray during conditions of low humidity and high temperatures because of the increased likelihood of spray drift to aquatic areas.

Do not apply using aerial or ground applications during temperature inversions. An inversion can be identified by the presence of ground fog in humid areas or by lateral movement of smoke (under low wind conditions) from a ground source or a smoke generator.

Instructions for Application

The following Directions for Use tables provide, in some cases, rate ranges. Use the lower application rates when insect pressure is light to moderate. Use the higher application rates when insect populations are high, when treating mites and when climate is arid.

Allow a 10 foot vegetative filter strip to grow between the aquatic areas and the treated crop.

In New York State this product may not be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

INDEX TO CROPS LISTED ON THIS LABEL

Artichokes

Brassicas

Caneberries

Canola, Crambe, Rapeseed

Citrus (Not for this use in Florida)

Cotton

Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (At Plant Use)

Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (PRE & PPI)

Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (Foliar Use)

Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (At Plant Use)

Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (Foliar Use)

Cucurbits

Eggplant

Grapes

Hops

Lettuce, Head

Pears

Peppers, Bell and Non-Bell

Spinach

Succulent Peas and Beans

Tomatoes

ARTICHOKES

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Artichoke Plume Moth Cribrate Weevil	0.10 lb. ai (6.4 fl. oz. product)	<p>Begin applications when pest population reaches damaging levels repeat as necessary to maintain control.</p> <p>Apply in water in a minimum of 75 gallons of spray/A by ground or in a minimum of 10 gallons/A by air.</p> <p>Repeat application at 15 day intervals.</p> <p>Do not apply more than 0.5 lb. a.i. /A (one quart product) per season.</p>	5

BRASSICAS

CROP	PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Head and Stem Brassica Vegetables including: Broccoli Brussels Sprouts Cabbage Cauliflower Cavalo Broccolo Chinese Broccoli (gai lon, white flowering broccoli) Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy) Kohlrabi	Aphids Armyworms Corn Earworm Crickets Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Ground Beetles Imported Cabbageworm Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs Thrips Tobacco Budworm Whitefly Wireworm (Adults)	0.033-0.10 lb. ai (2.1-6.4 fl. oz. product)	<p>Apply in water in a minimum of 10 gallons spray/A by ground or in a minimum of 2 gallons/A by air. Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired when applying by air.</p> <p>For best control thorough coverage is necessary.</p> <p>Do not exceed 0.5 lb a.i. (1 quart product) per acre per season.</p> <p>Do not make more than 5 applications after bloom.</p> <p>Repeat applications at 7 day intervals.</p>	7
	Banks Grass Mite Carmine Mite Lygus spp. Pacific Spider Mite Twospotted Spider Mite	0.08-0.10 lb. ai (5.12-6.4 fl. oz. product)		

CANEBERRIES

CROP	PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Caneberries including: Bingleberries Blackberries Dewberries Loganberries Lowberries Marionberries Ollalieberries Raspberries Youngberries	Leafrollers Orange Tortrix Root Weevils	0.05-0.10 lb. ai (3.2-6.4 fl. oz. product)	Apply in water in a minimum of 50 gallons/A by ground or in a minimum of 10 gallons/A by air. For best control thorough coverage of foliage is necessary. Make one prebloom application and if necessary one postbloom application. Do not apply more than 0.2 lb. a.i. /A per season.	3
	Spider Mites	0.10 lb. ai (6.4 fl. oz. product)		

CANOLA, CRAMBE, RAPESEED

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Armyworms Cutworms Diamondback Moth Flea Beetle Flea Hopper Grasshopper Loopers Other Lepidopterous Larvae Plant Bug Seedpod Weevil Stink Bugs Thrips Whitefly	0.033-0.04 lb. ai (2.1-2.6 fl. oz. product)	Apply in water in a minimum of 10 gallons/A by ground or in a minimum of 2 gallons/A by air. Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired when applying by air. For best control thorough coverage is necessary. Do not apply more than 0.08 lb. a.i. (5.12 fl. oz. product) per acre per season. Repeat applications at 14 day intervals.	35

CITRUS
(Not for use in Florida)

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Asian Cockroach <i>Diaprepes</i> Root Weevil (<i>Diaprepes abbreviatus</i>) Fire Ants	0.25-0.50 lb. ai (16-32 fl. oz. product)	<p>Use a hand-gun or shielded sprayer to apply to individual citrus resets, when not in solid planted rows.</p> <p><i>Diaprepes</i> Root Weevil: If peak emergence is expected in the spring, use 32 fl. oz. formulated product to obtain the longest residual control.</p> <p>If more than one peak of emergence is anticipated, apply 16 fl. oz. formulated product in the spring and 16 fl. oz. formulated product in the fall.</p> <p>Do not apply using any type of chemigation..</p> <p>Direct the spray to the base of tree to prevent contact with fruit or foliage.</p> <p>Do not apply more than a total of 0.5 lb ai (32 fl. oz. product) per acre per year.</p> <p>Apply by ground only in a minimum of 30 gallons/acre of finished spray.</p> <p>Do not apply by air.</p>	1

COTTON

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	0.02-0.10 lb. ai (1.3-6.4 fl. oz. product)	Apply Bifenture EC in water or refined soybean/cottonseed oil. Apply in water in a minimum of 5 gallons/A by ground or a minimum of 1 gallon/A by air. Substitute 1 quart of emulsified oil for 1 quart water if desired when applying by air.	14
Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm Whitefly Yellow Striped Armyworm	0.04-0.10 lb. ai (2.6-6.4 fl. oz. product)	ULV Application: Apply in refined vegetable oil in a minimum of 1 quart/A with aircraft calibrated to give adequate coverage. Boll Weevil: Apply Bifenture EC every 3 to 4 days until control is acceptable. Mites and Aphids: Apply when pests first appear. Repeat as necessary to maintain control. Use the higher rates once a damaging threshold is established. Apply no more than 0.5 lb. a.i. per acre per season.	
Beet Armyworm Carmine Spider Mite Lygus spp. Pink Bollworm Twospotted Spider Mite	0.06-0.10 lb. ai (3.8-6.4 fl. oz. product)	No more than 10 synthetic pyrethroid applications (of one product or combination of products, including Ambush®, Ammo®, Asana® XL, Baythroid®, Capture®, Danitol®, Karate®, Mustang®, and Scout X-TRA®) may be made on a cotton crop in one growing season. . Do not graze livestock in treated areas or cut treated crops for feed.	

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(AT PLANT USE)**

PESTS CONTROLLED	RATE BIFENTURE EC	APPLICATION INSTRUCTIONS	PHI (days)
Corn Rootworm, Larvae Northern Southern Western	0.0046 lb ai (0.30 fl. oz. product) per 1,000 linear feet of row	Apply at planting over the open seed furrow. The table below describes the amount of the Bifenture EC needed per acre. Apply in water in a minimum of 3 gallons/A . When using Bifenture EC with fertilizers, check to be sure all components are compatible. For mixture with water or fertilizer, use the following procedure. Fill the spray tank approximately one-half full with water or liquid fertilizer; add the proper amount of Bifenture EC; then add the rest of the water or fertilizer. Sufficient agitation during mixing and application is required to ensure a uniform mixture.	30
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 – 0.0046 lb ai (0.15 - 0.30 fl. oz. product) per 1,000 linear feet of row	Only apply to soil when there is less than 30% cover of crop residue remaining. Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment. Do not apply more than 0.1 lb. active per acre per season at planting.	

Row spacings	40 in.	38 in.	36 in.	30 in.
Bifenture EC (lb. a.i. per acre)	0.060	0.064	0.069	0.080
Bifenture EC (formulated product, ounces per acre)	3.9	4.1	4.4	5.12

FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
Pre-Plant Incorporated (PPI) and Pre-Emergence (PRE)

PESTS CONTROLLED	RATE BIFENTURE EC		APPLICATION INSTRUCTIONS
Armyworm spp. Black Cutworm Seedcorn Maggot Stalkborer White Grub Wireworm	0.047 to 0.062 lb. a.i./A (3-4 fl. oz./A product) Pre- Plant Incorporated (PPI)		Incorporate Bifenture EC close to the expected depth of the seed, but no deeper than 3 inches. PPI: Use the 3-4 oz./A rate only. Apply alone or with PPI herbicides as a tank mix. PRE: Use the 2.56 oz./A rate when tankmixing and applying with PRE herbicides.
Armyworm spp. Black Cutworm Stalkborer	0.040 lb. a.i./A (2.56 fl. oz./A product) Pre- emergence (PRE)		

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(FOLIAR USE)**

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10 lb ai (2.1-6.4 fl. oz. product)	<p>Apply in water in a minimum of 10 gallons/A by ground or in a minimum of 2-5 gallons/A by air. For heavy infestations, use 5 gallons of finished spray per acre by aircraft. Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired. For best control thorough coverage is necessary.</p> <p>Ear-Attacking Pests: Apply Bifenture EC just before silking.</p> <p>Southwestern Corn Borer, European Corn Borer: Apply at or shortly before egg hatch.</p> <p>Other Insect Pests: Apply when insects first appear. Repeat as needed.</p> <p>Banks Grass Mites: Apply f when colonies first form before leaf damage or discoloration and prior to movement above the bottom third of the plant.</p> <p>Twospotted Spider Mite and Carmine Mite: Apply when colonies first form before leaf damage or discoloration and before wide-spread mite movement throughout the canopy. Use the higher rates if heavier insect pressure is noted and corn is under heat or drought stress. Tank mixtures with dimethoate at 0.5 lb. a.i. per acre are effective under these conditions.</p> <p>Mite Control in Texas, New Mexico, Oklahoma, and Arizona: Apply in water in a minimum of 10 gallons/A ground or in a minimum of 5 gallons/A by air.</p>	30
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10 lb. ai (5.12-6.4 fl. oz. product)	<p>Repeat applications as necessary to maintain control, but do not apply more than 0.3 lb. active per acre per season including PRE & PPI, at plant plus foliar applications.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.</p> <p>Do not apply by ultra low volume (ULV) application on corn</p> <p>If heavy rainfall is imminent, do not make aerial or ground applications to corn.</p> <p>Use of Bifenture EC Agricultural Insecticide on corn is prohibited in all coastal counties.</p>	

SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(AT PLANT USE)

PESTS CONTROLLED	RATE BIFENTURE EC	APPLICATION INSTRUCTIONS	PHI (days)
Corn Rootworm, Larvae Northern Southern Western	0.0046 lb. ai (0.30 fl.oz. product) per 1,000 linear feet of row	Apply at planting over the open seed furrow. The table below describes the amount of Bifenture EC needed per acre. Apply in a minimum of 3 gallons of finished spray per acre. When using Bifenthrin EC with fertilizers, check to be sure all components are compatible. For mixture with water or fertilizer, use the following procedure. Fill the spray tank approximately one-half full with water or liquid fertilizer; add the proper amount of Bifenture EC; then add the rest of the water or fertilizer. Sufficient agitation during mixing and application is required to ensure a uniform mixture.	30
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 – 0.0046 lb. ai (0.15 - 0.30 fl.oz. product) per 1,000 linear feet of row	Only apply to soil where there is less than 30% cover of crop residue remaining. Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment. Do not apply more than 0.1 lb. active per acre per season at planting.	

Row Spacings	40 in.	38 in.	36 in.	30 in.
Bifenture EC (lb. a.i. per acre)	0.060	0.064	0.069	0.080
Bifenture EC (formulated product, ounces per acre)	3.9	4.1	4.4	5.12

SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(FOLIAR USE)

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10 lb. ai (2.1-6.4 fl. oz. product)	<p>Apply in water in a minimum of 10 gallons/A by ground or in a minimum of 2-5 gallons/A by air. For heavy infestations by aircraft, use 5 gallons of finished spray per acre. Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired.</p> <p>For best control, thorough coverage is necessary.</p> <p>Ear-Attacking Pests: Apply Bifenture EC just before silking.</p> <p>Southwestern Corn Borer, European Corn Borer: Apply twice, with the first application at or shortly before egg hatch.</p> <p>Other Insect Pests: Apply when insects first appear. Repeat as needed.</p> <p>Banks Grass Mites: Apply when colonies first form before leaf damage or discoloration and prior to movement above the bottom third of the plant.</p> <p>Twospotted Spider Mite and Carmine Mite: Apply when colonies first form before leaf damage or discoloration and prior to widespread mite movement throughout the canopy.</p>	1
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10 lb. ai (5.12-6.4 fl. oz. product)	<p>Use the higher rates if heavier insect pressure is noted and corn is under heat or drought stress.</p> <p>Repeat applications as necessary, but do not apply more than 0.2 lb. a.i. (12.8 fl. oz. product) per acre per season.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed within 1 day of the last application.</p> <p>Do not apply by ultra low volume (ULV) on corn.</p> <p>If heavy rainfall is imminent, do not make aerial or ground applications to corn.</p> <p>Use of Bifenture EC on corn is prohibited in all coastal counties.</p>	

CUCURBITS

[illegible]

EGGPLANT

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Armyworms Colorado Potato Beetle Corn Earworm Cucumber Beetle European Corn Borer Flea Beetle Cabbage Looper Plant Bug Stink Bug Thrips Tomato Pinworm Tomato Hornworm Vegetable Leafminer Whitefly	0.033-0.10 lb. ai (2.1-6.4 fl. oz. product)	Apply in water in a minimum of 10 gallons/A by ground or in a minimum of 2 gallons/A by air. Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired. For best control thorough coverage is necessary. Repeat application at 7 day intervals. Do not apply more than 0.2 lb. a.i. (12.8 fl. oz. product) per acre per season.	7
Banks Grass Mite Carmine Mite Lygus spp. Pacific Spider Mite Twospotted Spider Mite	0.08-0.10 lb. ai (5.12-6.4 fl. oz. product)		

GRAPES

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Eastern Grape Leafhopper Variegated Leafhopper Western Grape Leafhopper	0.05-0.10 lb. ai (3.2 to 6.4 fl. oz. product)	Apply in a minimum of 25 gallons/A by ground or in a minimum of 10 gallons/A by air.	30
Black Vine Weevil Glasswinged Sharpshooter Twospotted Spider Mite	0.10 lb. ai (6.4 fl. oz. product)	Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired. For best control thorough coverage is necessary. Use the higher rate when insect pressure is moderate to severe. Do not apply more than 0.10 lb. a.i. per acre per season.	

HOPS

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Armyworms Cutworms Leafrollers Loopers	0.06-0.1 lb. ai (3.8-6.4 fl. oz. product)	Do not apply more than 0.1 lb. a.i. per acre per application . Do not apply more than 0.3 lb. a.i. per acre per season . Repeat application at 21 day intervals. By ground: Full coverage is necessary for best results. For early season, use 100-150 gallons of spray per acre. For late season, use 200-250 gallons of spray per acre.	14
Root Weevils	0.05-0.1 lb. ai (3.2-6.4 fl. oz. product)		

Twospotted spider mite	0.1 lb. ai (6.4 fl. oz. product)	<p>Root Weevil, direct the spray to the base of the plant. Spray 3 feet up the vine and the soil surface 1.5 to 2 feet around the plant.</p> <p>Twospotted spider mites, for late season control: Apply at least 6.4 fl. oz. (0.1 lb. a.i.) per application in a minimum of 10 gallons per acre by air.</p> <p>Do not apply by ultra low volume (ULV) application to hops.</p>
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LETTUCE, HEAD

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Armyworms Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink Bug spp. Tobacco Budworm Whitefly	0.033-0.10 lb. ai (2.1-6.4 fl. oz. product)	<p>Apply in water in a minimum of 15 gallons/A by ground equipment or in 5 gallons/A by air. For air application, substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired.</p> <p>For best control thorough coverage is necessary.</p> <p>Repeat application at 7 day intervals.</p> <p>Do not apply more than 0.5 lb. a.i. per acre per season.</p>	7
Carmine Mite Lygus, spp. Twospotted Spider Mite	0.08-0.10 lb. ai (5.12-6.4 fl. oz. product)		

PEARS

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Coddling Moth Cutworms Green Fruitworm Leafhoppers Leafminers Leafrollers Lygus spp. Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs Tarnished	0.04-0.2 lb. ai (2.6 to 12.8 fl. oz. product)	<p>By ground: Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray. For best control thorough coverage is necessary.</p> <p>By air: Apply in a minimum of 10 gallons per acre.</p> <p>Do not apply more than 0.5 lb. active per acre per season with no more than 0.45 lb. active per acre applied after petal fall.</p> <p>Apply as necessary to maintain control and repeat applications at 30 day intervals</p> <p>Do not graze livestock in treated orchards or cut treated cover crops for feed.</p>	14

Plant Bugs			
Twospotted Spider Mite	0.06-0.2 lb. ai (8.8 to 12.8 fl. oz. product)		
Yellow Mite			
European Red Mite	0.08-0.2 lb. ai (5.12 to 12.8 fl. oz. product)		

PEPPERS, BELL AND NON-BELL

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	0.033-0.1 lb. ai (2.1-6.4 fl. oz. product)	Apply in water in a minimum of 10 gallons/A by ground or a minimum of 2 gallons/A by air. Repeat application at 7 day intervals. Apply as needed, but do not apply more than 0.20 lb. a.i. per acre per season.	7
Broad Mite Carmine Mite Lygus spp. Twospotted Spider Mite	0.08-0.1 lb. ai (5.12-6.4 fl. oz. product)		

SPINACH

PESTSS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Armyworms Colorado Potato Beetle Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Tomato Pinworm Tomato Hornworm Thrips Whitefly	0.033 to 0.10 lb. ai (2.1-6.4 fl. oz. product)	Whiteflies: make up to 4 foliar treatments of Bifenture EC by ground or air at rates of up to 0.4 pt. (0.1 lb. active) per acre Repeat applications at 7 day intervals. Fire ants: make up to 4 applications of Bifenture EC to the soil at planting or as a foliar treatment by ground or air at rates of up to 0.4 pt. (0.1 lb. active) per acre. Repeat application at 7 day intervals. Apply in water at 10-50 gallons/A by ground or 5-50 gallons /A by ground. Repeat application at 7 day intervals.	40
Broad Mite Banks Grass Mite Carmine Mite Fire Ants Lygus spp. Twospotted Spider Mite Pacific Spider Mite	0.08-0.10 lb. ai (5.12 to 6.4 fl. oz. product)	Do not exceed 0.4 lb. a.i. per acre per season.	

SUCCULENT PEAS AND BEANS

[illegible]

TOMATOES

PESTS CONTROLLED	RATE BIFENTURE EC/ACRE	APPLICATION INSTRUCTIONS	PHI (days)
Aphids Armyworms – Including: Beat Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm Bean Leaf Beetle Cabbageworm Carmin Mite Cloverworm Corn Earworm Corn Rootworm Cucumber Beetles Cutworms Diamondback Moth European Corn Borer Flea Beetles Flea Hopper Grasshopper Japanese Beetle (Adult) Leafhoppers Loopers Lygus spp. Melonworm Pea Weevil Pea Leaf Weevil Pickleworm Plant Bug Rindworm Salt Marsh Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink Bug spp. Tobacco Budworm Tarnished Plant Bug Thrips Two Spotted Spider Mite Whitefly	0.033-0.08 lb. ai (2.1-5.2 fl. oz. product)	Apply in water using a minimum of 15 gallons/A by ground. For best control, thorough coverage is necessary. Repeat applications at 10 day intervals. Apply as needed but do not make more than 4 applications per season.	1

**IMPORTANT INFORMATION
READ BEFORE USING PRODUCT**

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. The Directions for Use of this product reflect the opinion of experts based on field use and tests. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of United Phosphorus, Inc. and Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

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Danitol – trademark of Sumitomo Chemical Company, Ltd.
Scout Xtra – trademark of Hoechst Schering Agrevo S.A.

MARKED

RESTRICTED USE PESTICIDE
Toxic to fish and aquatic organisms.
 For retail sale to and use only by certified applicators, or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

BIFENTURE™ EC AGRICULTURAL INSECTICIDE

BIFENTURE EC AGRICULTURAL INSECTICIDE IS NOT FOR SALE OR USE IN CALIFORNIA.

Active Ingredient:	By Wt.
Bifenthrin* (2 methyl[1,1 -biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate	25.1%
Inert Ingredients**:	74.9%
TOTAL	100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.
 **Contain xylene range aromatic solvents
 This product contains 2 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN
WARNING
AVISO

This label must be in the possession of the user at the time of application.

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
NOTE TO PHYSICIAN This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided. Contains petroleum distillates. Vomiting may cause aspiration pneumonia. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR EMERGENCY MEDICAL ASSISTANCE, CALL THE NATIONAL PESTICIDE INFORMATION CENTER 1-800-858-7378.	

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident,
 call CHEMTREC 1-800-424-9300.**



Manufactured for:
 United Phosphorus, Inc.
 423 Riverview Plaza • Trenton, NJ 08611
 1-800-247-1557 • www.upi-usa.com

EPA Reg. No. 70506-57
 EPA Est. No.
 Net Contents:

PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals
Warning

WARNING. May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Harmful if absorbed through skin or inhaled. Avoid breathing spray mist. Avoid contact with skin. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

Handlers who may be exposed to the dilute through application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber or Viton
- Shoes plus socks

Handlers who may be exposed to the concentrate through mixing, loading, application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber, or Viton
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

Physical/Chemical Hazards

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Resistance: ~~Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities for details.~~

Bifenture EC Agricultural Insecticide Rev. 3-05 -MASTER LABEL

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control in your area.

BIFENTURE is an insecticide. Any insect/mite population may contain individual insects that may develop resistance to a specific pesticide product used in consecutive generations to control these pests. Prediction of resistance development is uncertain. Appropriate resistance management strategies should be followed. Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or Integrated Pest Management recommendations for the specific site and pest problems in your area.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Chemical-resistant gloves, such as barrier laminate or nitrile rubber or neoprene rubber or Viton.
- Shoes plus socks.

STORAGE AND DISPOSAL

Do not contaminate ~~other pesticides, fertilizers,~~ water, food, or feed by storage or disposal.

Pesticide Storage: ~~Do not freeze. Do not store below above 40°F. If crystals are observed, warm material to above 60°F by placing in warm location. Shake or roll container periodically to redissolve solids.~~

~~Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.~~

~~In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.~~

To Confine Spill: ~~If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.~~

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Disposal: Metal or Plastic Container: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Returnable, Refillable Containers: ~~Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase. Refillable/re-usable containers should be returned to the point of purchase for cleaning and refilling because the container must be thoroughly cleaned before refilling.~~

Chemigation Use Directions

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

~~Use For LEPA irrigation~~ a minimum of 0.75 inch of water per acre ~~if for LEPA irrigation s-recommended~~. Use 1 to 2 pints per Acre of ~~Where non-emulsified oils when are used as the diluent, 1 to 2 pints per acre is recommended.~~

~~The set up and calibration of chemigation equipment are important to achieve control of target insect pests. Results from utilizing chemigation have been variable and depend upon the set up and calibration of equipment.~~ Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. You should contact your State Agricultural Extension Service specialists, equipment manufacturers or other experts for advice consultation on the suitability of the equipment set up for optimum to obtain effective control of the target insect pests. ✓

A person knowledgeable of the chemigation system and responsible for its operations, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent areas.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Apply Bifenture EC Agricultural Insecticide ~~should be applied~~ continuously for the duration of the water application. Dilute Bifenture EC Agricultural Insecticide ~~should be diluted~~ in sufficient volume to ensure accurate application over the area to be treated. Use When using chemigation, a minimum of 0.5 inch per acre of irrigation water for application by chemigation is recommended. ~~No a~~ Agitation ~~generally is not required if when~~ a suitable diluent is used. Conduct a diluent test ~~should be conducted to check ensure~~ that phase separation will not occur during dilution and application. If Failure to achieve a uniform dilution is not achieved during throughout the entire period time of application, ~~may result in~~ undesirable residues or less than desirable control may occur.

Rotational Crop Restrictionss

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days after the last application.

Tank-Mixesture

Apply Bifenture EC Agricultural Insecticide ~~may be applied in tank mixtures~~ with other products registered for the same approved for use on registered crops. User should comply with ~~Observe all application directions, restrictions, and precautions on the EPA-registered which appear on the labels for other tank mix partners of these products.~~ Test for compatibility of products before mixing. ✓

Application Instructions

Rate of application is variable according to pest pressure, timing of sprays, and field scouting. Use lower rates under light to moderate infestations; higher rates under heavy insect pressure and for mite control. Arid climates generally require higher rates.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip.

In New York State this product may not be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

Spray Drift Precautions

~~Maintain and calibrate a~~ All aerial and ground application equipment ~~must be properly maintained and calibrated~~ using appropriate carriers.

~~OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS (SUCH AS LAKES, RESERVOIRS, RIVERS, PERMANENT STREAMS, MARSHES, OR NATURAL PONDS, ESTUARIES OR AND COMMERCIAL FISH FARM PONDS)~~ OBSERVE THESE PRECAUTIONS:

- Do not apply by ground equipment within 25 feet, or by air within 150 feet of ~~aquatic areas lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds.~~ Increase ~~the~~ the buffer zone ~~must be increased~~ to 450 feet when ultra low volume (ULV) application is made in cotton. ~~Do not use of~~ ultra low volume (ULV) applications ~~to~~ on corn and hops ~~is prohibited.~~
- When applied by air, ~~mount~~ For aerial applications, the spray boom ~~should be mounted~~ on the aircraft ~~so as~~ to minimize drift caused by ~~wingtip or rotor vortices or wingtip.~~ Use ~~the~~ the minimum practical boom length ~~should be used which~~ and must not exceed 75% of wing span or rotor diameter.
- Select the appropriate nozzle sizes to form the largest spray droplets that provide sufficient coverage and control. ~~Use the largest droplet size consistent with good pest control. Minimize the~~ Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting ~~pointing the~~ nozzles away from the air stream ~~as much as possible,~~ and by avoiding excessive spray boom pressure.
- ~~Do not apply the~~ Spray should be released at the lowest heights greater than 10 feet above the crop canopy, but at the lowest height to ensure consistent with pest control and flight safety. ~~Applications more than 10 feet above the crop canopy should be avoided.~~
- ~~Apply by air or ground when wind speed is between~~ Make aerial or ground applications when the wind velocity favors on target product deposition (approximately 3 and to 10 mph, and not greater than). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph. *reminds*
- Do not apply when wind is blowing ~~Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is towards~~ the aquatic area.
- Do not cultivate within 10 feet of the aquatic areas so as to ~~allow a~~ 10 foot growth of a vegetative filter strip to grow between the aquatic areas and the treated crop.
- Do not spray during conditions of low humidity and high temperatures ~~because of the increased likelihood of~~ increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.
- Do not ~~apply using~~ make aerial or ground applications during temperature inversions. ~~Do not make aerial or ground applications to corn if heavy rainfall is imminent. An~~ inversions ~~can be identified by the presence of ground fog in humid areas or by lateral movement of smoke (under low wind conditions) from a ground source or a smoke generator. are~~ characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of

an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

Instructions for Application

The following Directions for Use tables provide, in some cases, rate ranges. Use the lower application rates when insect pressure is light to moderate. Use the higher application rates when insect populations are high, when treating mites and when climate is arid.

Allow a 10 foot vegetative filter strip to grow between the aquatic areas and the treated crop.

→ provide

In New York State this product may not be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

INDEX TO CROPS LISTED ON THIS LABEL

Artichokes
Brassicas
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Cotton
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (At Plant Use)
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (PRE & PPI)
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Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (Foliar Use)
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ARTICHOKES

<u>PESTS CONTROLLED</u>	<u>DOSAGE FL-OZ/ARATE BIFENTURE EC/ACRE</u>	<u>REMARKS AND RESTRICTIONSAPPLICATION INSTRUCTIONS</u>	<u>PHI (days)</u>
Artichoke Plume Moth Cribrate Weevil	<u>0.10 lb. ai (6.4 fl. oz. product)</u>	<p>Apply-Begin applications when pest population reaches damaging threshold levels and Repeat as necessary to maintain control but not more often than 15 day intervals.</p> <p>Application by ground: Apply a full cover spray in a minimum of 75 gallons of finished spray per acre.</p> <p>Application by air: Apply specified dosage in a minimum of 10 gallons per acre. Apply in water in a minimum of 75 gallons of spray/A by ground or in a minimum of 10 gallons/A by air. Repeat application at 15 day intervals.</p> <p>Do not exceed apply more than 0.5 lb. a.i. /A (one quart product) per season. A 5-day preharvest interval must be observed.</p>	<u>5</u>

BRASSICAS

<u>CROP</u>	<u>PESTS CONTROLLED</u>	<u>DOSAGE FL-OZ/ARATE BIFENTURE EC/ACRE</u>	<u>REMARKS AND RESTRICTIONSAPPLICATION INSTRUCTIONS</u>	<u>PHI (days)</u>
Head and Stem Brassica Vegetables including: Broccoli Brussels Sprouts Cabbage Cauliflower Cavalo Broccolo Chinese Broccoli (gai lon, white flowering broccoli) Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy) Kohlrabi	<p>Aphids Armyworms Corn Earworm Crickets Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Ground Beetles Imported Cabbageworm Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs Thrips Tobacco Budworm Whitefly Wireworm (Adults)</p>	<p><u>0.033-0.10 lb. ai (2.1-6.4 fl. oz. product)</u></p>	<p>Apply in water in a minimum of 10 gallons spray/A by ground or in a minimum of 2 gallons/A by air. Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired when applying by air. For best control thorough coverage is necessary. Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not apply more thanexceed 0.5 lb a.i. (1 quart <u>product</u>) per acre per season.</p> <p>Do not make more than 5 applications after bloom.</p> <p>Do not make applications less than 7 days apart. Repeat applications at 7 day intervals. Do not apply within 7 days of harvest.</p>	<u>7</u>
	<p>Banks Grass Mite Carmine Mite Lygus spp. Pacific Spider Mite Twospotted Spider Mite</p>	<p><u>0.08-0.10 lb. ai (5.12-6.4 fl. oz. product)</u></p>		

CANEberries

CROP	PESTS CONTROLLED	DOSAGE FL-OZ/ARATE BIFENTURE EC/ACRE	REMARKS AND RESTRICTIONSAPPLICATION INSTRUCTIONS	PHI (days)
Caneberries including: Bingleberries Blackberries Dewberries Loganberries Lowberries Marionberries Olallieberries Raspberries Youngberries	Leafrollers Orange Tortrix Root Weevils	0.05-0.10 lb. ai (3.2-6.4 fl. oz. product)	Apply in water in a minimum of 50 gallons/A by ground or in a minimum of 10 gallons/A by air. For best control thorough coverage of foliage is necessary. Apply by air or ground equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons per acre by air and 50 gallons per acre by ground). Make one prebloom application and if necessary one postbloom application. One application may be made pre-bloom and a second application may be made post-bloom. Do not exceed apply more than 0.2 lb. a.i. /A per season. Do not apply within 3 days of harvest.	3
	Spider Mites	0.10 lb. ai (6.4 fl. oz. product)		

CANOLA, CRAMBE, RAPESEED

PESTS CONTROLLED	DOSAGE FL-OZ/ARATE BIFENTURE EC/ACRE	REMARKS AND RESTRICTIONSAPPLICATION INSTRUCTIONS	PHI (days)
Aphids Armyworms Cutworms Diamondback Moth Flea Beetle Flea Hopper Grasshopper Loopers Other Lepidopterous Larvae Plant Bug Seedpod Weevil Stink Bugs Thrips Whitefly	0.033-0.04 lb. ai (2.1-2.6 fl. oz. product)	Apply in water in a minimum of 10 gallons/A by ground or in a minimum of 2 gallons/A by air. Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired when applying by air. For best control thorough coverage is necessary. Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not apply more than 0.08 lb. a.i. (5.12 ounces fl. oz. formulated product) per acre per season. Do not make applications less than 14 days apart. Repeat applications at 14 day intervals. Do not apply within 35 days of harvest.	35

CITRUS

(Not for ~~this~~ use in Florida)

<u>PESTS CONTROLLED</u>	<u>DOSAGE RATE</u> <u>BIFENTURE EC/ACRE</u>	<u>REMARKS AND RESTRICTIONS</u> <u>APPLICATION INSTRUCTIONS</u>	<u>PHI</u> <u>(days)</u>
Asian Cockroach <i>Diaprepes</i> Root Weevil (<i>Diaprepes abbreviatus</i>) Fire Ants	16-32 ounces (0.25-0.50 lb. ai) (16-32 fl. oz. product) active per acre	<p>Apply to individual citrus resets, when not in solid planted rows, using a hand-gun or shielded sprayer to apply to individual citrus resets, when not in solid planted rows.</p> <p>Peak emergence of <i>Diaprepes</i> root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of <i>Diaprepes</i> root weevil may also occur in the fall.</p> <p>If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, <i>Diaprepes</i> Root Weevil: If peak emergence is expected in the spring, use 32 fluid fl. ounces oz. formulated product should be used to obtain the longest residual management of <i>Diaprepes</i> root weevil residual control.</p> <p>If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, if more than one peak of emergence is anticipated, apply 16 fluid fl. ounces oz. formulated product in the spring can be applied early season and 16 fluid fl. ounces oz. formulated product in the fall can be applied later in the season.</p> <p>If emergence extends beyond the residual protection of Bifenture EC, grower is advised to use additional management strategies (i.e. foliar adult control or soil larvae control such as nematodes). Contact your state agricultural Extension Specialist as to the recommendation suited for local conditions.</p> <p>Do not apply through irrigation using any type of chemigation systems.</p> <p>Do not allow any application of Bifenture EC to contact fruit or foliage. Direct the spray to the base of tree to prevent contact with fruit or foliage.</p> <p>Do not apply more than a total of 0.5 lb ai (32 fl. oz. fluid ounces of formulated product) (0.5 lb. a.i.) per acre per year.</p> <p>Apply by ground only in the specified dosage in a minimum of 30 gallons/acre of finished spray per acre.</p> <p>Ground application only. Do not apply by air.</p> <p>Do not apply within 1 day of harvest.</p>	1

COTTON

PESTS <u>CONTROLLED</u>	<u>DOSAGE</u> <u>FL-OZ/RATE</u> <u>BIFENTURE</u> <u>EC/ACRE</u>	<u>REMARKS AND</u> <u>RESTRICTIONS</u> <u>APPLICATION</u> <u>INSTRUCTIONS</u>	<u>PHI</u> <u>(days)</u>
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	<u>0.02-0.10 lb. ai</u> <u>(1.3-6.4 fl. oz.</u> <u>product)</u>	<u>Apply</u> Bifenture EC may be applied in water or refined vegetable oil (soybean/cottonseed oil); <u>Apply in water in a minimum of 5 gallons/A by ground or a minimum of 1 gallon/A by air. Substitute 1 quart of emulsified oil for 1 quart water if desired when applying by air.</u> <u>Application in Water:</u> Apply in a minimum of 5-gallons per acre with ground equipment or 1 gallon per acre by aircraft. When applying by air, 1 quart of emulsified oil may be substituted for one quart of water in the finished spray.	<u>14</u>
Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm Whitefly Yellow Striped Armyworm	<u>0.04-0.10 lb. ai</u> <u>(2.6-6.4 fl. oz.</u> <u>product)</u>	<u>ULV Application:</u> Apply the recommended rate of Bifenture EC in refined vegetable oil in a minimum of 1 quart/A of finished spray per acre with aircraft calibrated to give adequate coverage. <u>To Control Boll Weevil:</u> Apply Bifenture EC at an interval of every 3 to 4 days until pest numbers are reduced to acceptable levels <u>control is acceptable.</u> <u>To Control Mites and Aphids:</u> Apply when pests first appear. Repeat as necessary to maintain control. <u>Use the H</u> igher rates will be required once a damaging threshold is established. Do not a Apply <u>no</u> more than 0.5 lb. a.i. per acre per season.	
Beet Armyworm Carmine Spider Mite Lygus spp. Pink Bollworm Twospotted Spider Mite	<u>0.06-0.10 lb. ai</u> <u>(3.8-6.4 fl. oz.</u> <u>product)</u>	Do not make <u>No</u> more than 10 synthetic pyrethroid applications (of one product or combination of products, <u>including Ambush[®], Ammo[®], Asana[®] XL, Baythroid[®], Capture[®], Danitol[®], Karate[®], Mustang[®], and Scout X-TRA[®]</u>) may be to made o a cotton crop in one growing season. Synthetic pyrethroid products include Ambush[®], Ammo[®], Asana[®] XL, Baythroid[®], Capture[®], Danitol[®], Karate[®], Mustang[®], and Scout X-TRA[®]. Do not graze livestock in treated areas or cut treated crops for feed. Do not apply within 14 days of harvest.	

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(AT PLANT USE)**

PESTS CONTROLLED	DOSAGE RATE BIFENTURE EC	REMARKS AND RESTRICTIONSAPPLICATION INSTRUCTIONS	PHI (days)
Corn Rootworm, Larvae Northern Southern Western	<u>0.0046 lb ai</u> (0.30 fl. <u>uid</u> ounces <u>oz.</u> <u>product</u>) per 1,000 linear feet of row	Apply <u>at planting over the open seed furrow as a 5 to 7 inch T band</u> <u>treatment over an open seed furrow. Position the spray nozzle behind the</u> <u>planter shoe, in front of the press wheel centered over the row. Use t</u> <u>he</u> table below <u>describes the amount of to determine</u> the Bifenture EC neededs per acre. Apply <u>in water</u> in a minimum of 3 gallons/ <u>A</u> <u>of finished spray</u> <u>per acre.</u> <u>Mix Bifenture EC with water or fertilizer in the following manner. When</u> <u>using Bifenture EC with fertilizers, check to be sure all components are</u> <u>compatible. For mixture with water or fertilizer, use the following</u> <u>procedure.</u> <u>Fill the spray tank approximately one-half full with water or</u> <u>liquid fertilizer; add the proper amount of Bifenture EC; then add the rest</u> <u>of the water or fertilizer. Provide s</u> ufficient agitation during mixing and application <u>is required to maintain to ensure</u> a uniform <u>spray</u> mixture. <u>Applications of Bifenture EC alone or in recommended tank mixtures, in</u> <u>conjunction with in-furrow pop-up fertilizers may be used. A jar</u> <u>compatibility test should be performed with appropriate ratio of Bifenture</u> <u>EC and fertilizer to ensure mixture will stay in solution. Constant agitation</u> <u>should be maintained during mixing and application.</u> <u>Do not apply to soil where there is greater than 30% cover of crop residue</u> <u>remaining. Only apply to soil when there is less than 30% cover of crop</u> <u>residue remaining.</u> Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment. Do not apply more than 0.1 lb. active per acre per season <u>as an</u> <u>at planting.</u> <u>application.</u> <u>Do not apply within 30 days of harvest.</u>	<u>30</u>
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	<u>0.0023 –</u> <u>0.0046 lb ai</u> (0.15 <u>to</u> 0.30 fl. <u>uid</u> <u>oz.</u> <u>product</u>) <u>ounces</u> per 1,000 linear feet of row		

Row spacings (<u>inches</u>)	40 <u>in.</u>	38 <u>in.</u>	36 <u>in.</u>	30 <u>in.</u>
Bifenture EC (lb. a.i. per acre)	0.060	0.064	0.069	0.080
Bifenture EC (formulated product, ounces per acre)	3.9	4.1	4.4	5.12

FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
Pre-Plant Incorporated (PPI) and Pre-Emergence (PRE)

PESTS CONTROLLED	DOSAGE RATE BIFENTURE EC	REMARKS AND RESTRICTIONS APPLICATION INSTRUCTIONS
Armyworm spp. Black Cutworm Seedcorn Maggot Stalkborer White Grub Wireworm	0.047 to 0.062 lb. a.i./A <u>(3-4</u> <u>fl. oz./A</u> <u>product)</u> Pre- Plant Incorporated (PPI)	3 to 4 fl. oz./A Pre- Plant Incorporated (PPI) Incorporate Bifenture EC close to the expected depth of the seed, but no deeper than 3 inches. PPI: Use the 3-4 oz./A rate <u>only</u> . Apply alone or with PPI herbicides as a tank mix, must be applied as PPI and can be tankmixed and applied with PPI herbicides. PRE: Use the 2.56 oz./A rate <u>may be applied PRE and can be when</u> tankmixed <u>ingied</u> and apply <u>ingied</u> with PRE herbicides. Incorporation of Bifenture EC should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.
Armyworm spp. Black Cutworm Stalkborer	0.040 lb. a.i./A <u>(2.56</u> <u>fl. oz./A</u> <u>product)</u> Pre- emergence (PRE)	2.56 fl. oz./A Pre- emergence (PRE)

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(FOLIAR USE)**

<u>PESTS CONTROLLED</u>	<u>DOSAGE FL OZ/ARATE BIFENTURE EC/ACRE</u>	<u>REMARKS AND RESTRICTIONS APPLICATION INSTRUCTIONS</u>	<u>PHI (days)</u>
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	<u>0.033-0.10 lb ai (2.1-6.4 fl. oz. product)</u>	<p>Apply in a minimum of 2-5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment. Apply in water in a minimum of 10 gallons/A by ground or in a minimum of 2-5 gallons/A by air. To improve control For heavy infestations by aircraft, use 5 gallons of finished spray per acre by aircraft, particularly when initial populations are heavier than normal. <u>Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired.</u></p> <p><u>For best control thorough coverage is necessary.</u></p> <p>When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To Control</p> <p>Ear-Attacking Pests: Apply Bifenture EC just before silking and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: <u>Make Apply application for corn borer control with initial application at or shortly before egg hatch.</u></p> <p>For Control of Other Insect Pests: Apply when pests insects first appear and repeat as necessary. <u>Repeat as needed.</u></p> <p>For Control of Banks Grass Mites: Apply for Banks Grass Mite control when colonies first form prior before to leaf damage or discoloration and before prior to dispersal movement above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form prior before to leaf damage or discoloration and before wide-spread mite dispersal movement throughout the canopy.</p> <p><u>Use the H</u> higher rates will be necessary for if heavier initial populations insect pressure is noted and corn is under heat or drought stress. Field experience Tank mixtures -with dimethoate at 0.5 lb. a.i. per acre in tank mixture has demonstrated good control are effective under these conditions.</p> <p>Mite Control in Texas, New Mexico, Oklahoma, and Arizona: Apply in <u>water in</u> a minimum of 510 gallons/A of finished spray per acre by aircraft ground or in a For minimum of 105 gallons/A per acre with ground equipment by A by air.</p>	<u>30</u>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	<u>0.08-0.10 lb. ai (5.12-6.4 fl. oz. product)</u>	<p><u>Repeat applications as necessary to maintain control, but</u> Do do not apply more than 0.3 lb. active per acre per season including PRE & PPI, at plant plus foliar applications.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.</p>	

		<p>Use of<u>Do not apply by</u> -ultra low volume (ULV) application on corn is prohibited.</p> <p><u>If heavy rainfall is imminent.</u> Do do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of Bifenture EC Agricultural Insecticide on corn is prohibited in all coastal counties.</p> <p>Do not apply within 30 days of harvest.</p>	
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SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(AT PLANT USE)

<u>PESTS CONTROLLED</u>	<u>DOSAGE RATE BIFENTHRE EC</u>	<u>REMARKS AND RESTRICTIONS APPLICATION INSTRUCTIONS</u>	<u>PHI (days)</u>
Corn Rootworm, Larvae Northern Southern Western	0.0046 lb. ai (0.30 fl. oz. product) per 1,000 linear feet of row	Apply <u>at planting over the open seed furrow as a 5 to 7 inch T-band</u> treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine describes the amount of the Bifenture EC neededs per acre. Apply in a minimum of 3 gallons of finished spray per acre. <u>When using Bifenthrin EC with fertilizers, check to be sure all components are compatible. For mixture with water or fertilizer, use the following procedure. Mix Bifenture EC with water or fertilizer in the following manner:</u> Fill the spray tank approximately one-half full with water or liquid fertilizer; add the proper amount of Bifenture EC; then add the rest of the water or fertilizer. <u>Provide sufficient agitation during mixing and application is required to maintain ensure a uniform spray mixture.</u> <u>Applications of Bifenture EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Bifenture EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.</u> <u>Do not Only</u> apply to soil where there is <u>greater-less</u> than 30% cover of crop residue remaining. <u>Do not apply within 30 days of harvest.</u> Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment. Do not apply more than 0.1 lb. active per acre per season <u>as an</u> at <u>planting application.</u>	30
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 – 0.0046 lb. ai (0.15 to 0.30 fl. oz. product) per 1,000 linear feet of row		

Row Spacings (inches)	40 in.	38 in.	36 in.	30 in.
Bifenture EC (lb. a.i. per acre)	0.060	0.064	0.069	0.080
Bifenture EC (formulated product, ounces per acre)	3.9	4.1	4.4	5.12

**SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(FOLIAR USE)**

PESTS CONTROLLED	DOSAGE FL OZ/RATE BIFENTURE EC/ACRE	REMARKS AND RESTRICTIONS APPLICATION INSTRUCTIONS	PHI (days)
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	<u>0.033-0.10 lb.</u> <u>ai</u> <u>(2.1-6.4 fl. oz.</u> <u>product)</u>	<p><u>Apply in water in a minimum of 10 gallons/A by ground or in a minimum of 2-5 gallons/A by air. For heavy infestations by aircraft, use 5 gallons of finished spray per acre. Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired.</u></p> <p><u>For best control, thorough coverage is necessary. Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</u></p> <p>To Control Ear-Attacking Pests: Apply Bifenture EC <u>when just before silking, begins and repeat as necessary to maintain control.</u></p> <p>Southwestern Corn Borer, European Corn Borer: <u>Make 2 applications for corn borer control. Apply twice, with the initial first application at or shortly before egg hatch.</u></p> <p>For Control of Other Insect Pests: Apply when <u>pests insects first appear and repeat as necessary. Repeat as needed.</u></p> <p>For Control of Banks Grass Mites: Apply for Banks Grass Mites control <u>when colonies first form from prior to before leaf damage or discoloration and prior to before dispersal movement above the bottom third of the plant.</u></p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form <u>prior to before leaf damage or discoloration and before prior to widespread mite dispersal movement throughout the canopy.</u></p>	1
Banks Grass Mite Carmine Mite Twospotted Spider Mite	<u>0.08-0.10 lb.</u> <u>ai</u> <u>(5.12-6.4 fl. oz. product)</u>	<p><u>Use the H higher rates if will be necessary for heavier initial populations insect pressure is noted and corn is under heat or drought stress.</u></p> <p><u>Repeat applications as necessary, but Do not apply more than 0.2 lb. a.i. (12.8 ounces fl. oz. formulated product) per acre per season.</u></p> <p><u>Do not graze livestock in treated areas of cut treated crops for feed within 1 day of the last application.</u></p> <p>Use Do not apply by <u>ultra low volume (ULV) application on corn is prohibited.</u></p>	

		<p>If heavy rainfall is imminent. Do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of Bifenture EC on corn is prohibited in all coastal counties. Do not apply within 1 day of harvest.</p>	
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CUCURBITS

<u>CROP</u>	<u>PESTS CONTROLLED</u>	<u>DOSAGE FL OZ/ARATE BIFENTUR E EC/ACRE</u>	<u>REMARKS AND RESTRICTIONSAPPLICATION INSTRUCTIONS</u>	<u>PHI (days)</u>
Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Citron melon Cucumber Gherkin Gourd, edible (includes hyloan, cucuzza), (<i>Luffa</i> spp.) (includes hechima, Chinese okra), (<i>Momordica</i> spp.) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber) Muskmelon (hybrids and/or cultivars of <i>Cucumis melo</i>) (includes true cantaloupe, Cantaloupe,	Aphids Armyworms Cabbage Looper Corn Earworm Cucumber Beetles Cutworm Grasshopper Leafhoppers Melonworm Pickleworm Plant Bug Rindworm Squash Bugs Squash Vine Borer Stink Bugs Tobacco Budworm	<u>0.04-0.10 lb. ai (2.6-6.4 fl. oz. product)</u>	Apply <u>in water</u> in a minimum of <u>520</u> gallons/ <u>A</u> of finished spray per acre by <u>airground</u> or in a minimum of <u>205</u> gallons/ <u>A</u> per acre with ground equipment by <u>air</u> . When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. <u>Substitute 1-2 quarts of emulsified oil for 1-2</u> <u>quarts water if desired.</u> <u>For best control thorough coverage is</u> <u>necessary.</u> Do not apply more than 0.3 lb. a.i. (19.2 <u>fl.</u> <u>oz. ounces formulated</u> product) per acre per season. Do not <u>make apply</u> more than <u>twice</u> <u>applications</u> after bloom. <u>Do not make applications less than 7 days</u> <u>apart.</u> <u>Repeat applications at 7 day intervals.</u> <u>Do not apply within 3 days of harvest.</u>	<u>3</u>

casaba, crenshaw melon, golden, pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon)	Carmin Mite Banks Grass Mite Lygus spp Twospotted Spider Mite Whitefly .	<u>0.08-0.10 lb.</u> <u>ai</u> <u>(5.12-6.4 fl.</u> <u>oz. product)</u>	
Pumpkin (<i>Cucurbita spp.</i>)			
Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini)			
Squash, winter (includes butternut squash, calabaza, hubbard squash (<i>C. mixta</i> ; <i>C. pepo</i>), includes acorn squash, spaghetti squash)			
Watermelon (includes hybrids and or varieties of <i>Citrullis</i> <i>spp.</i>)			

EGGPLANT

<u>PESTS CONTROLLED</u>	<u>DOSAGE FL-OZ/RATE BIFENTURE EC/ACRE</u>	<u>REMARKS AND RESTRICTIONS APPLICATION INSTRUCTIONS</u>	<u>PHI (days)</u>
Armyworms Colorado Potato Beetle Corn Earworm Cucumber Beetle European Corn Borer Flea Beetle Cabbage Looper Plant Bug Stink Bug Thrips Tomato Pinworm Tomato Hornworm Vegetable Leafminer Whitefly	<u>0.033-0.10 lb. ai</u> <u>(2.1-6.4 fl. oz.</u> <u>product)</u>	Apply <u>in water</u> in a minimum of <u>102</u> gallons/ <u>A</u> of finished spray per acre by air <u>by ground</u> or in a minimum of <u>102</u> gallons/ <u>A</u> per acre with ground equipment by air . When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired. For best control thorough coverage is necessary. Do not make applications less than 7 days apart. Repeat application at 7 day intervals. Do not apply more than 0.2 lb. a.i. (12.8 fl. oz. ounces formulated product) per acre per season.	7
Banks Grass Mite Carmine Mite Lygus spp. Pacific Spider Mite Twospotted Spider Mite	<u>0.08-0.10 lb. ai</u> <u>(5.12-6.4 fl. oz.</u> <u>product)</u>	Do not apply within 7 days of harvest.	

GRAPES

<u>PESTS CONTROLLED</u>	<u>DOSAGE FL-OZ/RATE BIFENTURE EC/ACRE</u>	<u>REMARKS AND RESTRICTIONS APPLICATION INSTRUCTIONS</u>	<u>PHI (days)</u>
Eastern Grape Leafhopper Variegated Leafhopper Western Grape Leafhopper	<u>0.05-0.10 lb. ai</u> <u>(3.2 to 6.4 fl. oz.</u> <u>product)</u>	Apply in a minimum of <u>1025</u> gallons/ <u>A</u> of finished spray by air <u>by ground</u> or in a minimum of <u>2510</u> gallons/ <u>A</u> of finished spray with ground equipment by air . When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired. For best control thorough coverage is necessary.	30
Black Vine Weevil Glasswinged Sharpshooter Twospotted Spider Mite	<u>0.10 lb. ai</u> <u>(6.4 fl. oz.</u> <u>product)</u>	Use the higher rate When pest <u>insect</u> pressure is moderate to severe, use higher rate. Do not apply more than 0.10 lb. a.i. per acre per season. Do not apply within 30 days of harvest.	

HOPS

<u>PESTS CONTROLLED</u>	<u>DOSAGE FL-OZ/RATE BIFENTURE EC/ACRE</u>	<u>REMARKS AND RESTRICTIONS APPLICATION INSTRUCTIONS</u>	<u>PHI (days)</u>
Aphids Armyworms Cutworms Leafrollers Loopers	<u>0.06-0.1 lb. ai</u> <u>(3.8-6.4 fl. oz.</u> <u>product)</u>	Do not exceed <u>apply more than</u> 0.1 lb. a.i. per acre per application. Do not apply more than <u>exceed</u> 0.3 lb. a.i. per acre per season. A spray interval of 21 days between applications must be maintained. Repeat application at 21 day intervals.	14

Root Weevils	<u>0.05-0.1 lb. ai</u> <u>(3.2-6.4 fl. oz.</u> <u>product)</u>	A 14 day pre-harvest interval must be observed.
Twospotted spider mite	<u>0.1 lb. ai</u> <u>(6.4 fl. oz.</u> <u>product)</u>	<p>Application by ground: <u>Full coverage is necessary</u> For best results, <u>full coverage is essential.</u> For Early season, <u>recommend</u> 100-150 gallons of spray per acre. For late season, <u>recommend</u> 200-250 gallons of spray per acre.</p> <p>For Root Weevil control, make a directed <u>direct the</u> spray to the base of the plant. Spray up the vine <u>3 feet up the vine</u> and the soil surface 1.5 to 2 feet on either side of <u>around</u> the plant.</p> <p>Application by air for late season control of <u>Twospotted spider mites, for late season control:</u> Apply no less than <u>at least</u> 6.4 fl. oz. (0.1 lb. a.i.) per application in a minimum of 10 gallons per acre <u>by air.</u></p> <p>Use of <u>Do not apply by</u> ultra low volume (ULV) application on to <u>hops is prohibited.</u></p>

LETTUCE, HEAD

<u>PESTS CONTROLLED</u>	<u>DOSAGE FL OZ/ARATE BIFENTURE EC/ACRE</u>	<u>REMARKS AND RESTRICTIONSAPPLICATION INSTRUCTIONS</u>	<u>PHI (days)</u>
Aphids Armyworms Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink Bug spp. Tobacco Budworm Whitefly	<u>0.033-0.10 lb. ai</u> <u>(2.1-6.4 fl. oz.</u> <u>product)</u>	<p>Apply in water as necessary for insect control using <u>in</u> a minimum of 15 gallons/A <u>of finished spray per acre with</u> <u>by</u> ground equipment and or <u>in</u> 5 gallons/A <u>per acre</u> by air. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray.</p> <p>Thorough coverage is essential to achieve control.</p> <p>For air application, substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired.</p> <p>For best control thorough coverage is necessary.</p> <p>Do not make applications less than 7 days apart. Repeat application at 7 day intervals.</p> <p>A maximum of <u>Do not apply more than</u> 0.5 lb. a.i. may be applied per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>	<u>7</u>
Carmine Mite Lygus, spp. Twospotted Spider Mite	<u>0.08-0.10 lb. ai</u> <u>(5.12-6.4 fl. oz.</u> <u>product)</u>		

PEARS

<u>PESTS CONTROLLED</u>	<u>DOSAGE FL OZ/ARATE BIFENTURE EC/ACRE</u>	<u>REMARKS AND RESTRICTIONSAPPLICATION INSTRUCTIONS</u>	<u>PHI (days)</u>
Aphids Coddling Moth Cutworms Green Fruitworm Leafhoppers Leafminers Leafrollers	<u>0.04-0.2 lb. ai</u> <u>(2.6 to 12.8 fl. oz. product)</u>	<p>Application by <u>By</u> ground: Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray, in sufficient water to provide thorough coverage. <u>For best control thorough coverage is necessary.</u></p> <p>Application by <u>By</u> air: Apply the specified dosage in a minimum of 10 gallons per acre by air.</p>	<u>14</u>

Lygus spp. Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs Tarnished Plant Bugs		Do not apply more than 0.5 lb. active per acre per season with no more than 0.45 lb. active per acre applied after petal fall. Apply as necessary to maintain control <u>and repeat applications at 30 day intervals using a minimum of 30-day spray interval.</u> Do not graze livestock in treated orchards or cut treated cover crops for feed. <u>Do not apply within 14 days of harvest.</u>	
Twospotted Spider Mite	<u>0.06-0.2 lb. ai</u> <u>(8.8 to 12.8 fl.</u> <u>oz. product)</u>		
Yellow Mite	<u>0.08-0.2 lb. ai</u> <u>(5.12 to 12.8 fl.</u> <u>oz. product)</u>		
European Red Mite			

PEPPERS, BELL AND NON-BELL

<u>PESTS CONTROLLED</u>	<u>DOSAGE FL-OZ/RATE BIFENTURE EC/ACRE</u>	<u>REMARKS AND RESTRICTIONSAPPLICATION INSTRUCTIONS</u>	<u>PHI (days)</u>
Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	<u>0.033-0.1 lb. ai</u> <u>(2.1-6.4 fl. oz.</u> <u>product)</u>	<u>Apply using sufficient water to obtain uniform coverage. Apply as needed. Apply with ground equipment using in water in a minimum of 10 gallons/A by ground or finished spray per acre or a minimum of 2 gallons/A per acre by aircraft.</u> <u>Do not make applications less than 7 days apart. Repeat application at 7 day intervals.</u> <u>Apply as needed, but Do not apply more than 0.20 lb. a.i. per acre per season.</u> <u>Do not apply within 7 days of harvest.</u>	<u>7</u>
Broad Mite Carmine Mite Lygus spp. Twospotted Spider Mite	<u>0.08-0.1 lb. ai</u> <u>(5.12-6.4 fl. oz.</u> <u>product)</u>		

SPINACH

<u>PESTS CONTROLLED</u>	<u>DOSAGERATE BIFENTURE EC/ACRE</u>	<u>REMARKS AND RESTRICTIONSAPPLICATION INSTRUCTIONS</u>	<u>PHI (days)</u>
Armyworms Colorado Potato Beetle Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Tomato Pinworm Tomato Hornworm	<u>2.1 to 6.4 ounces</u> <u>(0.033 to 0.10 lb. ai</u> <u>active) per acre</u> <u>(2.1-6.4 fl. oz.</u> <u>product)</u>	<u>For control of whiteflies: apply make up to 4 foliar treatments of Bifenture EC by ground or air at rates of up to 0.4 pt. (0.1 lb. active) per acre at minimum 7-day intervals up to a maximum of 4 applications. Repeat applications at 7 day intervals.</u> <u>For control of fire ants: apply make up to 4 applications of Bifenture EC to the soil (at planting) or as a foliar treatment by ground or air at rates of up to 0.4 pt. (0.1 lb. active) per acre, at minimum 7-day intervals up to a maximum of 4 applications. Repeat application at 7 day intervals.</u> <u>Apply in water the specified dosage in at 10-50-50 gallons/A of</u>	<u>40</u>

Thrips Whitefly		finished spray per acre by air ground or 40-50-50 gallons / A of finished spray per acre by ground. Do not make applications less than 7 days apart. Repeat application at 7 day intervals.	
Broad Mite Banks Grass Mite Carmin Mite Fire Ants Lygus spp. Twospotted Spider Mite Pacific Spider Mite	0.08-0.10 lb. ai (5.12 to 6.4 ounces fl. oz. product)(0.08 to 0.10 lb. active) per acre	Do not apply exceed more than 0.4 lb. a.i. per acre per season. Do not apply within 40 days of harvest.	

SUCCULENT PEAS AND BEANS

CROP	PESTS CONTROLLED	DOSAGE FL OZ./RATE BIFENTURE EC/ACRE	REMARKS AND RESTRICTIONSAPPLICATION INSTRUCTIONS	PHI (days)
Pea (Pisum spp.) Dwarf pea Edible-pod pea English pea Garden pea	Flea Beetle Grasshoppers Aster Leafhopper Leafhoppers	0.025-0.10 lb. ai (1.6-6.4 fl. oz. product)	Apply in a minimum of 2 10 gallons/ A of finished spray per acre by air ground or in a minimum of 40 2 gallons/ A per acre with ground equipment by air. When applying by air, substitute 1-2 quarts of emulsified oil for 1-2 quarts water if desired.	3

Green pea	Alfalfa	<u>0.033-0.10 lb. ai</u>	<u>For best control thorough coverage is necessary.</u>
Snow pea	Caterpillar	<u>(2.1-6.4 fl. oz.</u>	<u>When applying by air, 1-2 quarts of emulsified oil</u>
Sugar snap pea	Aphids	<u>product)</u>	<u>may be substituted for 1-2 quarts of water in the</u>
Pigeon pea	Bean Leaf		<u>finished spray. Thorough coverage is essential to</u>
Bean (Phaseolus	Beetle		<u>achieve control.</u>
spp.):	Beet Armyworm		
Broadbean	Cloverworm		Do not apply more than 0.2 lb. a.i. (12.8 ounces fl. oz.
(succulent)	Corn Earworm		<u>formulated</u> product) per acre per season.
Lima bean	Corn Rootworm		<u>Do not apply within 3 days of harvest.</u>
(green)	(Adult)		
Runner bean	Cucumber		
Snap bean	Beetles		
Wax bean	Cutworms		
Bean (Vigna spp.):	European Corn		
Asparagus bean	Borer		
Blackeyed pea	Fall Armyworm		
Chinese longbean	Japanese Beetle		
Cowpeas	(Adult)		
Moth bean	Loopers		
Southern pea	Pea Leaf Weevil		
Yardlong bean	Pea Weevil		
Jackbean	Plant Bug		
Soybean	Sap Beetle		
(immature seed)	Southern		
Sword bean	Armyworm		
	Stink Bugs		
	Tarnished Plant		
	Bug		
	Thrips		
	Webworms		
	Western Bean		
	Cutworm		
	Yellowstriped		
	Armyworm		
	Whitefly		
	Banks Grass	<u>0.08-0.10 lb. ai</u>	
	Mite	<u>(5.12-6.4 fl. oz.</u>	
	Carmine Mite	<u>product)</u>	
	Lygus spp.		
	Twospotted		
	Spider Mite		

TOMATOES

<u>PESTS CONTROLLED</u>	<u>DOSAGE RATE</u> <u>BIFENTURE</u> <u>EC/ACRE</u>	<u>REMARKS AND</u> <u>RESTRICTIONS APPLICATION</u> <u>INSTRUCTIONS</u>	<u>PHI</u> <u>(days)</u>
Aphids Armyworms – Including: Beat Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm Bean Leaf Beetle Cabbageworm Carmine Mite Cloverworm	<u>0.033-0.08 lb. ai</u> <u>(2.1-5.2 fl. ounces</u> <u>oz. product) (0.033-</u> <u>0.08 lb. active) per</u> <u>acre</u>	Apply in water as necessary for insect control using a minimum of 15 gallons/A of finished spray per acre with <u>by</u> ground equipment. Thorough coverage is essential to achieve control. For best control, thorough <u>coverage is necessary.</u>	<u>1</u>

Corn Earworm Corn Rootworm Cucumber Beetles Cutworms Diamondback Moth European Corn Borer Flea Beetles Flea Hopper Grasshopper Japanese Beetle (Adult) Leafhoppers Loopers Lygus spp. Melonworm Pea Weevil Pea Leaf Weevil Pickleworm Plant Bug Rindworm Salt Marsh Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink Bug spp. Tobacco Budworm Tarnished Plant Bug Thrips Two Spotted Spider Mite Whitefly		<p>Do not make applications less than 10 days apart. Repeat applications at 10 day intervals.</p> <p>A maximum of Apply as needed but do not make more than 4 applications may be applied per season.</p> <p>Do not apply within 1 day of harvest.</p>	✓
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IMPORTANT INFORMATION
READ BEFORE USING PRODUCT

-CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

—The Directions for Use of this product should be followed carefully. The Directions for Use of this product reflect the opinion of experts based on field use and tests. —It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of United Phosphorus, Inc. and Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

United Phosphorus, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or United Phosphorus, Inc., and Buyer and User assume the risk of any such use. UNITED PHOSPHORUS, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent allowed by law, United Phosphorus, Inc. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UNITED PHOSPHORUS, INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UNITED PHOSPHORUS, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

United Phosphorus, Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of United Phosphorus, Inc.:

Ammo, Capture, Mustang – trademarks of FMC Corporation
Ambush, Karate – trademarks of a Syngenta Group Company.
Asana – trademark of E.I. duPont de Nemours & Company
Baythroid – trademark of Bayer
Danitol – trademark of Sumitomo Chemical Company, Ltd.
Scout Xtra – trademark of Hoechst Schering Agrevo S.A.



United States
Environmental Protection Agency
Washington, DC 20460

<input type="checkbox"/>	Registration	OPP Identifier Number 274897
<input checked="" type="checkbox"/>	Amendment	
<input type="checkbox"/>	Other	

Application for Pesticide – Section I

1. Company/Product Number 70506-57	2. EPA Product Manager G. LaRocca	3. Proposed Classification <input type="checkbox"/> None <input checked="" type="checkbox"/> Restricted
4. Company/Product (Name) United Phosphorus, Inc/Bifenture EC Agricultural Insecticide	PM # 13	
5. Name and Address of Applicant (Include ZIP Code) United Phosphorus, Inc. 423 Riverview Plaza Trenton, NJ 08611	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg No. _____ Product Name _____	
<input type="checkbox"/> Check if this is a new address		

Section - II

<input checked="" type="checkbox"/> Amendment – Explain below	<input type="checkbox"/> Final printed labels in response to
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> Agency letter dated _____
<input type="checkbox"/> Notification – Explain below	<input type="checkbox"/> "Me Too" Application
	<input type="checkbox"/> Other – Explain below

Explanation: Use additional page(s) if necessary. (For Section I and Section II.)
Label revisions in response to copyright infringement challenge.

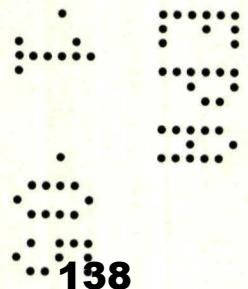
Section III

1. Material This Product Will be Packaged in:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Metal	
				<input type="checkbox"/> Plastic	
				<input type="checkbox"/> Glass	
				<input type="checkbox"/> Paper	
				<input type="checkbox"/> Other (Specify) _____	
*Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt.	No. per container
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of label directions <input type="checkbox"/> On Label <input type="checkbox"/> On Label accompanying product	
6. Manner in Which Label is Affixed to Product		<input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____	

Section IV

1. Contact Person (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Rebecca A. Clemmer	Title Regulatory Affairs Manager	Telephone No. (Include Area Code) 609-392-8200

Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law		6. Date Application Received (Stamped)
2. Signature 	3. Title Regulatory Affairs Manager	
4. Typed Name Rebecca A. Clemmer	5. Date August 31, 2005	





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

September 6, 2005

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

REBECCA A. CLEMMER
UNITED PHOSPHORUS INC
423 RIVERVIEW PLAZA
TRENTON, NJ 08611

PRODUCT NAME: BIFENTURE EC AGRICULTURAL INSECTICIDE
COMPANY NAME: UNITED PHOSPHORUS INC
OPP IDENTIFICATION NUMBER: 274897
EPA FILE SYMBOL: 70506-57
EPA RECEIPT DATE: 09/01/05

SUBJECT: RECEIPT OF AMENDMENT

DEAR REGISTRANT:

The Office of Pesticide Programs has received your application for an amendment and it has passed an administrative screen for completeness.

During the initial screen we determined that the application appears to qualify for fast track review. The package will now be forwarded to the Product Manager for review to determine its acceptability for fast track status.

If you have any questions, please contact Registration Division, Risk Management Team 13, at (703) 305-6100.

Sincerely,

A handwritten signature in blue ink, appearing to read "Julie".

Front End Processing Staff
Information Services Branch
Information Technology & Resources Management Division

Fee for Service



This package includes the following

☐ New Registration

☒ Amendment

☐ Studies? ☐ Fee Waiver?

☐ volpay % Reduction: ____

for Division

☐ AD

☐ BPPD

☒ RD

Risk Mgr. 13

Receipt No.

S- W 783784

EPA File Symbol/Reg. No.

70506-57

Pin-Punch Date:

9/1/05

☒ This item is NOT subject to FFS action.

Action Code:

Requested:

Granted:

Amount Due: \$ _____

Parent/Child Decisions:

Reviewer: J. Miller

Date: 9-6-05

Remarks:

NON - FEE



United Phosphorus, Inc.

423 Riverview Plaza
Trenton, NJ 08611
(609) 392-8200 x 18 (phone)
(609) 392-0808 (fax)

Rebecca A. Clemmer
Regulatory Affairs Manager

August 31, 2005

George LaRocca (PM 13)
Document Processing Desk (AMEND)
Office of Pesticide Programs (7504C)
U.S. Environmental Protection Agency
1801 Bell Street
Arlington, VA 22202

Re: COPYRIGHT INFRINGEMENT ISSUE
UP-Star Gold Insecticide (EPA Reg. No. 70506-24)
Bifenture EC Agricultural Insecticide (EPA Reg. No. 70506-57)

Dear Mr. LaRocca:

United Phosphorus, Inc., in response to a copyright challenge, has revised the subject labels and is submitting them to you for review and approval. Enclosed please find the following in support of this action:

- EPA Form 8570-1 for each product
- Four clean copies of each label
- One copy of each label, marked to show changes
- One electronic copy of each of the above labels, marked and unmarked
- Label Data Integrity Form for each set of labels.

Since no data are submitted with this amendment, nor do data need to be reviewed, United Phosphorus believes this amendment does not require a Pesticide Registration Service Fee as defined in the Pesticide Registration Improvement Act of 2003.

Please contact me if you have any questions.

Very truly yours,

Rebecca A. Clemmer
rclemmer@upi-usa.com

Certification with Respect to Label Integrity

version: 9/11/02

I certify that the information (including, but not limited to, text, tables, and graphics) contained in the electronic file identified below by file name and submitted with this certification is the same information as that on the paper copies of these documents included with this submission.

PROPOSED LABEL		
EPA Registration #	Date Submitted to EPA	Electronic file name
70506-57	8/31/05	070506-57.20050831.draftlabel.pdf 070506-57.20050831.redlinelabel.pdf

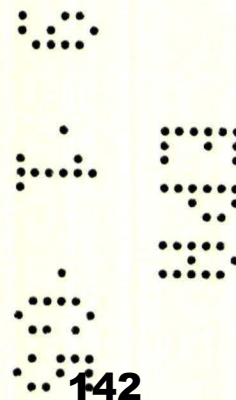
I certify that the statements that I have made on this form are true, accurate, and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.

Rebecca A. Clemmer
Signature

08/31/2005
Date

Rebecca A. Clemmer
Name (typed)

Regulatory Affairs Manager
Title



**The Electronic Copy of the Label
Submitted with this Application has
been Removed by the Front End
Processing Unit for Entry in the
Electronic Label Library (ELL).**

*Please contact either Tom Harris (RD) or Bob Schultz
(IRSD/ISB) for Assistance.*



4984-3

Please Read All Instructions Before Completing this Form (Form must be typed)

Form Approved. OMB. No. 2070-0044



Handwritten signature

United States
Environmental Protection Agency
Office of Pesticide Programs (7505C)
Washington, DC 20460

Notice of Supplemental Distribution of a Registered Pesticide Product

Instructions

After a registrant has obtained final registration for the basic product, the registrant may then supplementally distribute his/her product. One form must be submitted for each distributor product and must be signed by the distributor involved. The basic registration number and the distributor company number must be shown.

If a registrant has a potential distributor who does not have a company number assigned, she/he should have the distributor apply, on letterhead stationery, to the Registration Division to have a number assigned prior to submitting this form to the agency.

This Notice of Supplemental Distribution must be submitted by the basic registrant. The completed form must have the concurrence and signature of both the registrant and the distributor.

EPA Registration Number of Product

70506-57

Distributor Company Number

1318

Note: Do not submit distributor product labels

Name of Registered Product (basic product name accepted by EPA)

Bifenture EC Agricultural Insecticide

Distributor Product Name

Tundra Insecticide

Name and Address of Distributor (Type; include ZIP code)

Agrialliance LLC
5500 Cenex Drive MS 348
Inver Grove heights, MN 55077

Read All Conditions Before Signing

1. The distributor product must have the same composition as the basic product.
2. The distributor product must be manufactured and packaged by the same person who manufactures and packages the registered basic product.
3. The labeling for the distributor product must bear the same claims as the basic product, provided, however, that specific claims may be deleted if by doing so, no other changes to the label are necessary.
4. The product must remain in the manufacturer's unbroken container.
5. The label must bear the EPA registration number of the basic product, followed by a hyphen and the distributor's company number.
6. Distributor product labels must bear the name and address of the distributor qualified by such terms as "packed for...", "distributed by..."; or "sold by..." to show that the name is not that of the manufacturer.
7. All conditions of the basic registration apply equally to distributor products. It is the responsibility of the basic registrant to see that all distributor labeling is kept in compliance with requirements placed on the basic product.

Distributor

We intend to market our product under the Distributor Product Name specified above, subject to the conditions specified on this Notice.

Signature and Title of Distributor

Gary Halvorson Registration Manager

Date

2/10/1005

Registrant

I agree that the distributor named above may distribute and sell the Distributor Product specified above, subject to the conditions specified on this Notice.

Signature and Title of Registrant

Handwritten signature: JAMES S. RICHARDSON
General Manager

Date

2/10/1005

United States Environmental Protection Agency
Office of Pesticide Programs (H7505C)
401 M Street SW
Washington, DC 20460

Notice of Supplemental Distribution of a Registered Pesticide Product

Instructions

After a registrant has obtained final registration for the basic product, the registrant may then supplementally distribute his/her product. One form must be submitted for each distributor product and must be signed by the distributor involved. The basic registration number and the distributor company number must be shown.

If a registrant has a potential distributor who does not have a company number assigned, she/he should have the distributor apply, on letterhead stationary, to the Registration Division to have a number assigned prior to submitting this form to the agency.

This Notice of Supplemental Distribution must be submitted by the basic registrant. The completed form must have the concurrence and signature of both the registrant and the distributor.

EPA Registration Number of Product

70506-57

Distributor Company Number

51036

Note: Do not submit distributor product labels

Name of Registered Product (basic product name accepted by EPA)

Bifenture EC Agricultural Insecticide

Distributor Product Name

Bifenthrin 2EC AG

Name and Address of Distributor (Type; include ZIP code)

**Micro Flo Company LLC
P.O. Box 772099
Memphis, TN 38117**

Read All Conditions Before Signing

1. The distributor product must have the same composition as the basic product.
2. The distributor product must be manufactured and packaged by the same person who manufactures and packages the registered basic product.
3. The labeling for the distributor product must bear the same claims as the basic product, provided, however, that specific claims may be deleted if by doing so, no other changes to the label are necessary.
4. The product must remain in the manufacturer's unbroken container.
5. The label must bear the EPA registration number of the basic product, followed by a hyphen and the distributor's company number.
6. Distributor product labels must bear the name and address of the distributor qualified by such terms as "packed for ...", "distributed by..."; or sold by..." to show that the name is not that of the manufacturer.
7. All conditions of the basic registration apply equally to distributor products. It is the responsibility of the basic registrant to see that all distributor labeling is kept in compliance with requirements placed on the basic product.

Distributor

We intend to market our product under the Distributor Product Name specified above, subject to the conditions specified on this Notice.

Signature and Title of Distributor

Bice Wade Regulatory Affairs Manager

Date

February 22, 2005

Registrant

I agree that the distributor named above may distribute and sell the Distributor Product specified above, subject to the conditions specified on this Notice.

Signature and Title of Registrant:

[Signature] VP of Sales

Date

2/23/05



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

NOV 15 2004

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Ms. Rebecca A. Clemmer
Regulatory Affairs Manager
UNITED PHOSPHORUS, INC
423 Reversview Plaza
Trenton, NJ 08611

Subject: Renewal/Extension of Conditional Registrations
Bifenture EC Agricultural Insecticide
EPA Registration No. 70506-57
Bifenture EC-CA Agricultural Insecticide
EPA Registration No. 70506-58
UP- Cyde 2.5 EC Agricultural Insecticide
EPA Registration No. 70506-20
Your application dated September 30, 2004

Dear Ms. Clemmer:

We have considered your request for renewal/ extension of the conditional registrations for the subject products and the requirement for an expiration date. We agree that the imposition of an expiration date is no longer needed to obtain data or other information provided these registrations remain conditional and the registrant agrees to submit data in a timely manner to allow the Agency to complete its risk assessment and to make FIFRA Sect § 3 (c) (5) or other appropriate regulatory decisions for cotton-use synthetic pyrethroids and other crops conditionally registered. Therefore the subject conditional registrations are amended and renewed without an expiration date since you have agreed to all conditions imposed on the granting of these registrations.

The labeling last approved for the subject product is the label of record. No additional labeling needs to be submitted at this time.

If you have any questions regarding this action, please contact me at (703)305-6100.

Sincerely yours,

George LaRocca
Product Manager (13)
Insecticides Branch
Registration Division (7505C)



United Phosphorus, Inc.

423 Riverview Plaza
Trenton, NJ 08611
(609) 392-8200 x 18 (phone)
(609) 392-0808 (fax)

Rebecca A. Clemmer
Regulatory Affairs Manager

September 30, 2004

Mr. George LaRocca (PM 13)
Document Processing Desk (APPL)
Office of Pesticide Programs (7504C)
U.S. Environmental Protections Agency
1801 Bell Street
Arlington, VA 22202

Re: Bifenture™ EC Agricultural Insecticide, EPA Reg. No. 70506-57
Bifenture™ EC-CA Agricultural Insecticide, EPA Reg. No. 70506-58
Administrative Submission for Renewal of Registration
Submission of Production Information

Dear Mr. LaRocca:

According to the letter of registration dated August 25, 2004, EPA registration of the subject products is scheduled by EPA to expire on November 15, 2004. United Phosphorus, Inc. is submitting the enclosed application requesting renewal of this registration. We have complied with all conditions set on the granting of these registrations, and request that they be renewed without expiration date.

In support of this action, enclosed please find EPA Form 8570-1 for each product, and a copy of the current product labeling. The labeling is the same as that submitted by us on September 8, which notified USEPA of a change in product name and correction of typographical errors.

Also in the letter of registration, United Phosphorus, Inc. is required to submit production information for the 2004 fiscal year. United Phosphorus, Inc. hereby advises the Agency that there has been no production of either of these products between the date of registration and September 30, 2004.

No data are being submitted with this application and no fees are applicable under the requirements of PRIA.

Please contact me if you have any questions.

Very truly yours,

Rebecca A. Clemmer
rclemmer@upi-usa.com

	United States	<input type="checkbox"/>	Registration	OPP Identifier Number 274818
	Environmental Protection Agency	<input type="checkbox"/>	Amendment	
	Washington, DC 20460	<input checked="" type="checkbox"/>	Other	

Application for Pesticide – Section I

1. Company/Product Number 70506-57	2. EPA Product Manager LaRocca	3. Proposed Classification <input type="checkbox"/> None <input checked="" type="checkbox"/> Restricted
4. Company/Product (Name) United Phosphorus, Inc/Bifenture™ EC Agricultural Insecticide	PM # 13	
5. Name and Address of Applicant (Include ZIP Code) United Phosphorus, Inc. 423 Riverview Plaza Trenton, NJ 08611 <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg No. _____ Product Name _____

Section - II



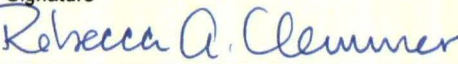
<input type="checkbox"/> Amendment – Explain below <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input type="checkbox"/> Notification – Explain below	<input type="checkbox"/> Final printed labels in response to <input type="checkbox"/> "Me Too" Application <input checked="" type="checkbox"/> Other – Explain below
---	--

Explanation: Use additional page(s) if necessary. (For Section I and Section II.)
 Administrative renewal of registration as required by registration approval letter.

Section III

1. Material This Product Will be Packaged in:				2. Type of Container	
Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging			
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes		<input type="checkbox"/> Metal	
<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No		<input type="checkbox"/> Plastic	
*Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt.	No. per container
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of label directions <input type="checkbox"/> On Label <input type="checkbox"/> On Label accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			<input type="checkbox"/> Other _____		

Section IV

1. Contact Person (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)					
Name Rebecca A. Clemmer		Title Regulatory Affairs Manager		Telephone No. (Include Area Code) 609-392-8200	
Certification					6. Date Application Received (Stamped)  
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law					
2. Signature 		3. Title Regulatory Affairs Manager			
4. Typed Name Rebecca A. Clemmer		5. Date 9/30/04			

EPA Form 8570-1 (Rev. 8-94) Previous editions are obsolete.

White – EPA File Copy (Original) Yellow – Applicant Copy

Explore Registrations					
Reg Number:	70506-57	Reg. Type:	Product Registration - Section 3	Status:	Conditionally Registered (25-Aug-2
Name:	BIFENTHRIN EC AGRICULTURAL INSECTICIDE			<View Registration Details>	
(No New Receipts)					
S:	Submission Type	OPP Rec'd Date	Resubmission	Description	
<div> <div>...Decisions...</div> <div> <div>Data Requirements</div> <div> <div>D: 334427; 70506-57;165;NEW REGISTRATION</div> <div> <div>DP 304200;RD / IB; Complete Date: 29-Jun-</div> <div>S: 768945 10/4/2004; New Registration; 705</div> <div>S: 765730 7/28/2004; New Registration; 705</div> <div>S: 754408 1/30/2004; New Registration; 705</div> <div>S: 747824 10/6/2003; New Registration; 705</div> </div> </div> </div> </div>		<div> <div>S: 768945 Reg #: 70506-57</div> <div>Submission Type: New Registration</div> <div>Resubmission?: <input checked="" type="radio"/> Yes <input type="radio"/> No</div> <div>Decision #: 334427; 165;NEW REGISTRATION;OLD INGREDIENT;MINOR C</div> <div>Submitter Company: UNITED PHOSPHORUS INC</div> <div>Application Date: 30-Sep-2004</div> <div>OPP Received Date: 04-Oct-2004 Date Sent to Risk manager: 07-Oct-2004</div> <div>Studies Included?: <input type="radio"/> Yes <input checked="" type="radio"/> No Fast Track?: <input type="radio"/> Yes <input checked="" type="radio"/> No</div> <div>Form A Signed? <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> None Date: </div> <div>Form B Signed?: <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> None Date: </div> <div>Reviewer: Larocca, George</div> <div>Received DT: Editable Due DT: </div> <div>Admin Due DT: 12-Apr-2005 Response: 0 , 04-Oct-2004</div> <div>Priority Weight: Priority Points: </div> <div>Comments: request extension of conditional registration, submit production information</div> </div>			



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

**Office of Pesticide Programs
Registration Division (7505C)**

INSECTICIDE BRANCH

F a x

**Name: Rebecca Clemmer
Organization: United Phosphorus Inc.
Fax Number: 609-392-0808
Phone Number:**

**From: George T. LaRocca,
Product Manager (13)**

Date: 12/08/2004

**Phone Number: 703/305-6100
Fax Number: 703/305-6596**

Subject: Renewal/Extension of Conditional Registrations.

Cover plus 1 Pages:

Comments: Here is a copy of our November 15th, 2004 letter renewing the conditional registrations of certain synthetic pyrethroid products used on cotton. This letter was mailed out around Nov 17th so I am surprised you have not received a hard copy by now unless the address is incorrect.

OCT -6 2004

Ms. Rebecca A. Clemmer
Regulatory Affairs Manger
UNITED PHOSPHORUS, INC.
423 Riverview Plaza
Trenton, NJ 08611

Dear Ms. Clemmer:

This is in response to your request dated September 7, 2004 to change the primary brand name for **EPA Registration 70506-57** from Bifenthrin™ EC Agricultural Insecticide to:

BIFENTURE™ EC AGRICULTURAL INSECTICIDE

Your request for the name change **is accepted** and the change will be made to the Agency's records. All future correspondence on this product should reference the new name.

Sincerely yours,

/s/

Sherada D. Hobgood
Notifications Review Coordinator
Registration Division (7505C)

	United States	<input type="checkbox"/> Registration	OPP Identifier Number
	Environmental Protection Agency	<input type="checkbox"/> Amendment	274813
	Washington, DC 20460	<input checked="" type="checkbox"/> Other	

Application for Pesticide - Section I

1. Company/Product Number 70506-57	2. EPA Product Manager La Rocca	3. Proposed Classification <input type="checkbox"/> None <input checked="" type="checkbox"/> Restricted
4. Company/Product (Name) United Phosphorus, Inc/Bifenture EC Agricultural Insecticide	PM # 13	
5. Name and Address of Applicant (Include ZIP Code) United Phosphorus, Inc. 423 Riverview Plaza Trenton, NJ 08611	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg No. _____ Product Name _____	
<input type="checkbox"/> Check if this is a new address		

Section - II

<input type="checkbox"/> Amendment - Explain below	<input type="checkbox"/> Final printed labels in response to
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application
<input checked="" type="checkbox"/> Notification - Explain below	<input type="checkbox"/> Other - Explain below

Explanation: Use additional page(s) if necessary. (For Section I and Section II.)


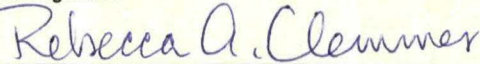
Notification of product name change and correction of typographical errors.

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section III

1. Material This Product Will be Packaged in:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
*Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt.	No. per container
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of label directions <input type="checkbox"/> On Label <input type="checkbox"/> On Label accompanying product	
6. Manner in Which Label is Affixed to Product		<input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other _____			

Section IV

1. Contact Person (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)					
Name Rebecca A. Clemmer		Title Regulatory Affairs Manager		Telephone No. (Include Area Code) 609-392-8200	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.					6. Date Application Received (Stamped) 
2. Signature 		3. Title Regulatory Affairs Manager			
4. Typed Name Rebecca A. Clemmer		5. Date Sept. 7, 2004			

RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.

For retail sale to and use only by certified applicators, or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

BIFENTURE™ EC AGRICULTURAL INSECTICIDE**BIFENTURE EC AGRICULTURAL INSECTICIDE IS NOT FOR SALE OR USE IN CALIFORNIA.****Active Ingredient:**

Bifenthrin* (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate 25.1%

Inert Ingredients:** 74.9%

TOTAL 100.0%

By Wt.

*Cis isomers 97% minimum, trans isomers 3% maximum.

**Contain xylene range aromatic solvents

This product contains 2 pounds active ingredient per gallon.

Product name
changed to
Bifenture EC
throughout

KEEP OUT OF REACH OF CHILDREN**WARNING****AVISO****NOTIFICATION**

OCT - 6 2004

This label must be in the possession of the user at the time of application.

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID

If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give any liquid to the person.• Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.• Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN

This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided. Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR EMERGENCY MEDICAL ASSISTANCE, CALL THE NATIONAL PESTICIDE INFORMATION CENTER 1-800-858-7378.

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident,
call CHEMTREC 1-800-424-9300.**



Manufactured for:
United Phosphorus, Inc.
423 Riverview Plaza • Trenton, NJ 08611
1-800-247-1557 • www.upi-usa.com

EPA Reg. No. 70506-57
EPA Est. No.
Net Contents:

Bifenture EC Agricultural Insecticide MASTER LABEL

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PRECAUTIONARY STATEMENTS
Hazards to Humans and Domestic Animals
Warning

WARNING. May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Harmful if absorbed through skin or inhaled. Avoid breathing spray mist. Avoid contact with skin. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

Handlers who may be exposed to the dilute through application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber or Viton
- Shoes plus socks

Handlers who may be exposed to the concentrate through mixing, loading, application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber, or Viton
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

Physical/Chemical Hazards

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Resistance: Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities for details.

Bifenture EC Agricultural Insecticide MASTER LABEL

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control in your area.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Chemical-resistant gloves, such as barrier laminate or nitrile rubber or neoprene rubber or Viton.
- Shoes plus socks.

STORAGE AND DISPOSAL

Pesticide Storage: Do not freeze. Do not store below 40°F. If crystals are observed, warm material to above 60°F by placing in warm location. Shake or roll container periodically to redissolve solids.

Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

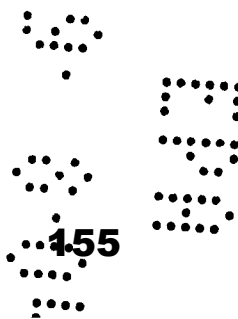
In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

To Confine Spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Disposal: Metal or Plastic Container: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Returnable, Refillable Containers: Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.



Chemigation Use Directions

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

For LEPA irrigation a minimum of 0.75 inch of water per acre is recommended. Where non-emulsified oils are used as the diluent, 1 to 2 pints per acre is recommended.

Results from utilizing chemigation have been variable and depend upon the set up and calibration of equipment. Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. Contact your State Agricultural Extension Service specialists, equipment manufacturers or other experts for consultation on the suitability of the equipment set up to obtain effective control of the target insect pests.

A person knowledgeable of the chemigation system and responsible for its operations, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent areas.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Bifenture EC Agricultural Insecticide should be applied continuously for the duration of the water application. Bifenture EC Agricultural Insecticide should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation, a minimum of 0.5 inch per acre of irrigation water is recommended. Agitation generally is not required when a suitable diluent is used. A diluent test should be conducted to ensure that phase separation will not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control.

Rotational Crops

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days after the last application.

Tank-Mixture

Bifenture EC Agricultural Insecticide may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products. Test for compatibility of products before mixing.

Application Instructions

Rate of application is variable according to pest pressure, timing of sprays, and field scouting. Use lower rates under light to moderate infestations; higher rates under heavy insect pressure and for mite control. Arid climates generally require higher rates.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip.

In New York State this product may not be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

Spray Drift Precautions

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES; RESERVOIRS; RIVERS; PERMANENT STREAMS; MARSHES OR NATURAL PONDS; ESTUARIES AND COMMERCIAL FISH FARM PONDS.

Do not apply by ground equipment within 25 feet, or by air within 150 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds. Increase the buffer zone to 450 feet when ultra low volume (ULV) application is made in cotton. Use of ultra low volume (ULV) application on corn and hops is prohibited.

For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.

Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.

Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

Make aerial or ground applications when the wind velocity favors on target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.

Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Do not cultivate within 10 feet of the aquatic areas so as to allow growth of a vegetative filter strip.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.

Do not make aerial or ground applications during temperature inversions. Do not make aerial or ground applications to corn if heavy rainfall is imminent. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

INDEX TO CROPS LISTED ON THIS LABEL

Artichokes
Brassicas
Caneberries
Canola, Crambe, Rapeseed
Citrus
Cotton
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (At Plant Use)
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (PRE & PPI)
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (Foliar Use)
Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (At Plant Use)
Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (Foliar Use)
Cucurbits
Eggplant
Grapes
Hops
Lettuce, Head
Pears
Peppers, Bell and Non-Bell
Spinach
Succulent Peas and Beans
Tomatoes

ARTICHOKES

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Artichoke Plume Moth Cribrate Weevil	0.10	6.4	<p>Apply when pest population reaches damaging threshold and repeat as necessary to maintain control, but not more often than 15 day intervals.</p> <p>Application by ground: Apply a full cover spray in a minimum of 75 gallons of finished spray per acre.</p> <p>Application by air: Apply specified dosage in a minimum of 10 gallons per acre.</p> <p>Do not exceed 0.5 lb. a.i. /A per season.</p> <p>A 5-day preharvest interval must be observed.</p>

BRASSICAS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Head and Stem Brassica Vegetables including: Broccoli Brussels Sprouts Cabbage Cauliflower Cavalo Broccolo Chinese Broccoli (gai lon, white flowering broccoli) Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy) Kohlrabi	Aphids Armyworms Corn Earworm Crickets Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Ground Beetles Imported Cabbageworm Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs Thrips Tobacco Budworm Whitefly Wireworm (Adults)	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not apply more than 0.5 lb a.i. (1 quart) per acre per season.</p> <p>Do not make more than 5 applications after bloom.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply within 7 days of harvest.</p>
	Banks Grass Mite Carmine Mite Lygus spp. Pacific Spider Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	

CANEberries

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Caneberries including: Bingleberries Blackberries Dewberries Loganberries Lowberries Marionberries Ollalieberries Raspberries Youngberries	Leafrollers Orange Tortrix Root Weevils	0.05-0.10	3.2-6.4	<p>Apply by air or ground equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons per acre by air and 50 gallons per acre by ground).</p> <p>One application may be made pre-bloom and a second application may be made post bloom.</p> <p>Do not exceed 0.2 lb. a.i. /A per season.</p> <p>Do not apply within 3 days of harvest.</p>
	Spider Mites	0.10	6.4	

CANOLA, CRAMBE, RAPESEED

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Armyworms Cutworms Diamondback Moth Flea Beetle Flea Hopper Grasshopper Loopers Other Lepidopterous Larvae Plant Bug Seedpod Weevil Stink Bugs Thrips Whitefly	0.033-0.04	2.1-2.6	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not apply more than 0.08 lb. a.i. (5.12 ounces formulated product) per acre per season. Do not make applications less than 14 days apart.</p> <p>Do not apply within 35 days of harvest.</p>

CITRUS

PEST	DOSAGE	REMARKS AND RESTRICTIONS
<p>Asian Cockroach</p> <p><i>Diaprepes</i> Root Weevil (<i>Diaprepes abbreviatus</i>)</p> <p>Fire Ants</p>	<p>16-32 ounces (0.25-0.50 lb. active) per acre</p>	<p>Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer.</p> <p>Peak emergence of <i>Diaprepes</i> root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of <i>Diaprepes</i> root weevil may also occur in the fall.</p> <p>If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 32 fluid ounces formulated product should be used to obtain the longest residual management of <i>Diaprepes</i> root weevil.</p> <p>If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 16 fluid ounces formulated product can be applied early season and 16 fluid ounces formulated product can be applied later in the season.</p> <p>If emergence extends beyond the residual protection of Bifenture EC, grower is advised to use additional management strategies (i.e. foliar adult control or soil larvae control such as nematodes). Contact your state agricultural Extension Specialist as to the recommendation suited for local conditions.</p> <p>Do not apply through irrigation systems.</p> <p>Do not allow any application of Bifenture EC to contact fruit or foliage.</p> <p>Do not apply more than a total of 32 fluid ounces of formulated product (0.5 lb. a.i.) per acre per year.</p> <p>Apply the specified dosage in a minimum of 30 gallons of finished spray per acre.</p> <p>Ground application only. Do not apply by air.</p> <p>Do not apply within 1 day of harvest.</p>

COTTON

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	0.02-0.10	1.3-6.4	<p>Bifenture EC may be applied in water or refined vegetable oil (soybean/cottonseed).</p> <p>Application in Water: Apply in a minimum of 5 gallons per acre with ground equipment or 1 gallon per acre by aircraft. When applying by air, 1 quart of emulsified oil may be substituted for one quart of water in the finished spray.</p>
Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm Whitefly Yellow Striped Armyworm	0.04-0.10	2.6-6.4	<p>ULV Application: Apply the recommended rate of Bifenture EC in refined vegetable oil in a minimum of 1 quart of finished spray per acre with aircraft calibrated to give adequate coverage.</p> <p>To Control Boll Weevil: Apply Bifenture EC at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.</p> <p>To Control Mites and Aphids: Apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is established.</p>
Beet Armyworm Carmine Spider Mite Lygus spp. Pink Bollworm Twospotted Spider Mite	0.06-0.10	3.8-6.4	<p>Do not apply more than 0.5 lb. a.i. per acre per season.</p> <p>Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include Ambush®, Ammo®, Asana® XL, Baythroid®, Capture®, Danitol®, Karate®, Mustang®, and Scout X-TRA®.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed.</p> <p>Do not apply within 14 days of harvest.</p>

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(AT PLANT USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS			
Corn Rootworm, Larvae Northern Southern Western	0.0046 lb. a.i. per 1,000 linear feet of row	0.30 fluid ounces per 1,000 linear feet of row	<p>Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the Bifenture EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre.</p> <p>Mix Bifenture EC with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Bifenture EC then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.</p>			
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 to 0.0046 lb. a.i. per 1,000 linear feet of row	0.15 to 0.30 fluid ounces per 1,000 linear feet of row	<p>Applications of Bifenture EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Bifenture EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.</p> <p>Do not apply to soil where there is greater than 30% cover of crop residue remaining.</p> <p>Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</p> <p>Do not apply more than 0.1 lb. active per acre per season as an at plant application.</p> <p>Do not apply within 30 days of harvest.</p>			
Row Spacings (inches)			40	38	36	30
Bifenture EC Agricultural Insecticide (lb. a.i. per acre)			0.060	0.064	0.069	0.080
Bifenture EC Agricultural Insecticide (formulated product, ounces per acre)			3.9	4.1	4.4	5.12

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
Pre-Plant Incorporated (PPI) and Pre-Emergence (PRE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
Armyworm spp. Black Cutworm Seedcorn Maggot Stalkborer White Grub Wireworm	0.047 to 0.062 lb. a.i./A Pre- Plant Incorporated (PPI)	3 to 4 fl. oz./A Pre- Plant Incorporated (PPI)	The 3-4 oz./A rate must be applied as PPI and can be tankmixed and applied with PPI herbicides. Incorporation of Bifenture EC should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.
Armyworm spp. Black Cutworm Stalkborer	0.040 lb. a.i./A Pre- emergence (PRE)	2.56 fl. oz. /A Pre- emergence (PRE)	The 2.56 oz/A rate may be applied PRE and can be tankmixed and applied with PRE herbicides.

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(FOLIAR USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2-5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment. To improve control by aircraft, use 5 gallons of finished spray per acre particularly when initial populations are heavier than normal. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To Control Ear-Attacking Pests: Apply Bifenture EC just before silking and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make application for corn borer control with initial application at or shortly before egg hatch.</p> <p>For Control of Other Insect Pests: Apply when pests first appear and repeat as necessary.</p> <p>For Control of Mites: Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form prior to leaf damage or discoloration and before wide-spread mite dispersal throughout the canopy.</p> <p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 lb. a.i. per acre in tank mixture has demonstrated good control under these conditions.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	<p>For Mite Control in Texas, New Mexico, Oklahoma, and Arizona: Apply in a minimum of 5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment.</p> <p>Do not apply more than 0.3 lb. active per acre per season including PRE & PPI, at plant plus foliar applications.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of Bifenture EC Agricultural Insecticide on corn is prohibited in all coastal counties.</p> <p>Do not apply within 30 days of harvest.</p>

SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(AT PLANT USE)

PEST	DOSAGE		REMARKS AND RESTRICTIONS			
Corn Rootworm, Larvae Northern Southern Western	0.0046	0.30	<p>Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the Bifenture EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre.</p> <p>Mix Bifenture EC with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Bifenture EC then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.</p>			
	lb. a.i. per 1,000 linear feet of row	fluid ounces per 1,000 linear feet of row				
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023	0.15 to	<p>Applications of Bifenture EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Bifenture EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.</p> <p>Do not apply to soil where there is greater than 30% cover of crop residue remaining.</p> <p>Do not apply within 30 days of harvest.</p> <p>Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</p> <p>Do not apply more than 0.1 lb. active per acre per season as an at plant application.</p>			
	to 0.0046 lb. a.i. per 1,000 linear feet of row	0.30 fluid ounces per 1,000 linear feet of row				
Row Spacings (inches)			40	38	36	30
Bifenture EC (lb. a.i. per acre)			0.060	0.064	0.069	0.080
Bifenture EC (formulated ounces per acre)			3.9	4.1	4.4	5.12

**SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(FOLIAR USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To Control Ear-Attacking Pests: Apply Bifenture EC when silking begins and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make 2 applications for corn borer control with the initial application at or shortly before egg hatch.</p> <p>For Control of Other Insect Pests: Apply when pests first appear and repeat as necessary.</p> <p>For Control of Mites: Apply for Banks Grass Mites control when colonies first form from prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	<p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress.</p> <p>Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated product) per acre per season.</p> <p>Do not graze livestock in treated areas of cut treated crops for feed within 1 day of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of Bifenture EC on corn is prohibited in all coastal counties.</p> <p>Do not apply within 1 day of harvest.</p>

CUCURBITS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB A/A	FL OZ/A	
Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Citron melon Cucumber Gherkin Gourd, edible (includes hyloan, cucuzza), (<i>Luffa</i> spp.) (includes hechima, Chinese okra), (<i>Momordica</i> spp.) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber) Muskmelon (hybrids and/or cultivars of <i>Cucumis melo</i>) (includes true cantaloupe, Cantaloupe, casaba, crenshaw melon, golden, pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon) Pumpkin (<i>Cucurbita</i> spp.) Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini) Squash, winter (includes butternut squash, calabaza, hubbard squash (<i>C. mixte</i> ; <i>C. pepo</i>), includes acorn squash, spaghetti squash) Watermelon (includes hybrids and or varieties of <i>Citrullis</i> spp.)	Aphids Armyworms Cabbage Looper Corn Earworm Cucumber Beetles Cutworm Grasshopper Leafhoppers Melonworm Pickleworm Plant Bug Rindworm Squash Bugs Squash Vine Borer Stink Bugs Tobacco Budworm Carmine Mite Banks Grass Mite Lygus spp Twospotted Spider Mite Whitefly	0.04-0.10 		

EGGPLANT

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Armyworms Colorado Potato Beetle Corn Earworm Cucumber Beetle European Corn Borer Flea Beetle Cabbage Looper Plant Bug Stink Bug Thrips Tomato Pinworm Tomato Hornworm Vegetable Leafminer Whitefly	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated product) per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>
Banks Grass Mite Carmine Mite Lygus spp. Pacific Spider Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	

GRAPES

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Eastern Grape Leafhopper Variegated Leafhopper Western Grape Leafhopper	0.05 to 0.10	3.2 to 6.4	<p>Apply in a minimum of 10 gallons of finished spray by air or in a minimum of 25 gallons of finished spray with ground equipment. When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray.</p> <p>Thorough coverage is essential to achieve control.</p> <p>When pest pressure is moderate to severe, use higher rate.</p> <p>Do not apply more than 0.10 lb. a.i. per acre per season.</p> <p>Do not apply within 30 days of harvest.</p>
Black Vine Weevil Glaswinged Sharpshooter Twospotted Spider Mite	0.10	6.4	

HOPS

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Armyworms Cutworms Leafrollers Loopers	0.06-0.1	3.8-6.4	<p>Do not exceed 0.1 lb. a.i. per acre per application.</p> <p>Do not exceed 0.3 lb. a.i. per acre per season.</p> <p>A spray interval of 21 days between applications must be maintained.</p> <p>A 14 day pre-harvest interval must be observed.</p>
Root Weevils	0.05-0.1	3.2-6.4	

Twospotted spider mite	0.1	6.4	<p>Application by ground: For best results, full coverage is essential. Early season recommend 100-150 gallons of spray per acre. Late season recommend 200-250 gallons of spray per acre.</p> <p>For Root Weevil control, make a directed spray to the base of the plant. Spray up the vine 3 feet and the soil surface 1.5 to 2 feet on either side of the plant.</p> <p>Application by air for late season control of twospotted spider mites: Apply no less than 6.4 oz (0.1 lb. a.i.) per application in a minimum of 10 gallons per acre.</p> <p>Use of ultra low volume (ULV) application on hops is prohibited.</p>
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LETTUCE, HEAD

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Armyworms Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink Bug spp. Tobacco Budworm Whitefly	0.033-0.10	2.1-6.4	<p>Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment and 5 gallons per acre by air. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not make applications less than 7 days apart.</p> <p>A maximum of 0.5 lb. a.i. may be applied per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>
Carmine Mite Lygus, spp. Twospotted Spider Mite	0.08-0.10	5.12-6.4	

PEARS

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Coddling Moth Cutworms Green Fruitworm Leafhoppers Leafminers Leafrollers Lygus spp. Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs	0.04 to 0.2	2.6 to 12.8	<p>Application by ground: Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray in sufficient water to provide thorough coverage.</p> <p>Application by air: Apply the specified dosage in a minimum of 10 gallons per acre by air.</p> <p>Do not apply more than 0.5 lb. active per acre per season with no more than 0.45 lb. active per acre applied after petal fall.</p> <p>Apply as necessary to maintain control using a minimum of 30 day spray interval.</p> <p>Do not graze livestock in treated orchards or cut treated cover crops for feed.</p>

Tarnished Plant Bugs			Apply up to 14 days prior to harvest.
Twospotted Spider Mite	0.06 to 0.2	8.8 to 12.8	
Yellow Mite			
European Red Mite	0.08 to 0.2	5.12 to 12.8	

PEPPERS, BELL AND NON-BELL

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	0.033-0.1	2.1-6.4	<p>Apply using sufficient water to obtain uniform coverage. Apply as needed. Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply more than 0.20 lb. a.i. per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>
Broad Mite Carmine Mite Lygus spp. Twospotted Spider Mite	0.8-0.10	5.12-6.4	

SPINACH

PESTS	DOSAGE	REMARKS AND RESTRICTIONS
Armyworms Colorado Potato Beetle Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Tomato Pinworm Tomato Hornworm Thrips Whitefly	2.1 to 6.4 ounces (0.033 to 0.10 lb. active) per acre	<p>For control of whiteflies apply foliar treatments of Bifenture EC by ground or air at rates of up to 0.4 pt. (0.1 lb. active) per acre at minimum 7-day intervals up to a maximum of 4 applications.</p> <p>For control of fire ants apply Bifenture EC to the soil (at planting) or as a foliar treatment by ground or air at rates of up to 0.4 pt. (0.1 lb. active) per acre at minimum 7-day intervals up to a maximum of 4 applications.</p> <p>Apply the specified dosage in 5-50 gallons of finished spray per acre by air or 10-50 gallons of finished spray per acre by ground.</p> <p>Do not make applications less than 7 days apart.</p>
Broad Mite Banks Grass Mite Carmine Mite Fire Ants Lygus spp. Twospotted Spider Mite Pacific Spider Mite	5.12 to 6.4 ounces (0.08 to 0.10 lb. active) per acre	<p>Do not apply more than 0.4 lb. a.i. per acre per season.</p> <p>Do not apply within 40 days of harvest.</p>

SUCCULENT PEAS AND BEANS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Pea (Pisum spp.)	Flea Beetle	0.025-0.10	1.6-6.4	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.
Dwarf pea	Grasshoppers			
Edible-pod pea	Aster	0.033-0.10	2.1-6.4	Do not apply more than 0.2 lb. a.i. (12.8 ounces formulated product) per acre per season.
English pea	Leafhopper			
Garden pea	Leafhoppers	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
Green pea	Alfalfa			
Snow pea	Caterpillar	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
Sugar snap pea	Aphids			
Pigeon pea	Bean Leaf	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
Bean (Phaseolus spp.):	Beetle			
Broadbean	Beet Armyworm	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
(succulent)	Cloverworm			
Lima bean	Corn Earworm	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
(green)	Corn Rootworm			
Runner bean	(Adult)	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
Snap bean	Cucumber			
Wax bean	Beetles	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
Bean (Vigna spp.):	Cutworms			
Asparagus bean	European Corn	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
Blackeyed pea	Borer			
Chinese longbean	Fall Armyworm	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
Cowpeas	Japanese Beetle			
Moth bean	(Adult)	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
Southern pea	Loopers			
Yardlong bean	Pea Leaf Weevil	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
Jackbean	Pea Weevil			
Soybean	Plant Bug	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
(immature seed)	Sap Beetle			
Sword bean	Southern	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
	Armyworm			
	Stink Bugs	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
	Tarnished Plant			
	Bug	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
	Thrips			
	Webworms	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
	Western Bean			
	Cutworm	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
	Yellowstriped			
	Armyworm	0.033-0.10	2.1-6.4	Do not apply within 3 days of harvest.
	Whitefly			
	Banks Grass	0.08-0.10	5.12-6.4	Do not apply within 3 days of harvest.
	Mite			
	Carmin Mite	0.08-0.10	5.12-6.4	Do not apply within 3 days of harvest.
	Lygus spp.			
	Twospotted	0.08-0.10	5.12-6.4	Do not apply within 3 days of harvest.
	Spider Mite			

TOMATOES

PEST	DOSAGE	REMARKS AND RESTRICTIONS
Aphids Armyworms – Including: Beat Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm Bean Leaf Beetle Cabbageworm Carmine Mite Cloverworm Corn Earworm Corn Rootworm Cucumber Beetles Cutworms Diamondback Moth European Corn Borer Flea Beetles Flea Hopper Grasshopper Japanese Beetle (Adult) Leafhoppers Loopers Lygus spp. Melonworm Pea Weevil Pea Leaf Weevil Pickleworm Plant Bug Rindworm Salt Marsh Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink Bug spp. Tobacco Budworm Tarnished Plant Bug Thrips Two Spotted Spider Mite Whitefly	2.1-5.2 fluid ounces (0.033-0.08 lb. active) per acre	Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment. Thorough coverage is essential to achieve control. Do not make applications less than 10 days apart. A maximum of 4 applications may be applied per season. Do not apply within 1 day of harvest.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors. United Phosphorus, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or United Phosphorus, Inc., and Buyer and User assume the risk of any such use. UNITED PHOSPHORUS, INC. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent allowed by law, United Phosphorus, Inc. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UNITED PHOSPHORUS, INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UNITED PHOSPHORUS, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

United Phosphorus, Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of United Phosphorus, Inc..

Ammo, Capture, Mustang – trademarks of FMC Corporation
Ambush, Karate – trademarks of a Syngenta Group Company
Asana – trademark of E.I. duPont de Nemours & Company
Baythroid – trademark of Bayer
Danitol – trademark of Sumitomo Chemical Company, Ltd.
Scout Xtra – trademark of Hoechst Schering Agrevo S.A.

EPA Approved 8/25/04



United Phosphorus, Inc.

423 Riverview Plaza
Trenton, NJ 08611
(609) 392-8200 x 18 (phone)
(609) 392-0808 (fax)

Rebecca A. Clemmer
Regulatory Affairs Manager

September 7, 2004

Mr. George LaRocca (PM 13)
Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504C)
U.S. Environmental Protections Agency
1921 Jefferson Davis Highway
Arlington, VA 22202

Re: Notification of New Brand Name
Bifenthrin EC Agricultural Insecticide (EPA Reg. No. 70506-57)
Bifenthrin EC-CA Agricultural Insecticide (EPA Reg. No. 70506-58)

Dear Mr. LaRocca:

United Phosphorus, Inc. would like to advise the Agency of new primary brand names for the above listed products:

Bifenture™ EC Agricultural Insecticide (EPA Reg. No. 70506-57)
Bifenture™ EC-CA Agricultural Insecticide (EPA Reg. No. 70506-58)

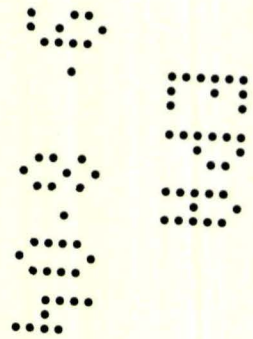
In support of this Notification, enclosed please find for each product:

- EPA Form 8570-1 for Notification for each product;
- One copy of each label, marked to show the changes (product name, throughout); these labels also incorporate the changes required in your letters dated 7/21/04 and include the correction of a number of simple typographical errors.

Please contact me if you have any questions.

Very truly yours,

Rebecca A. Clemmer
rclemmer@upi-usa.com





United States
Environmental Protection Agency
Office of Pesticide Programs (7505C)
Washington, DC 20480

14 B 5-2

Notice of Supplemental Distribution of a Registered Pesticide Product

Instructions

After a registrant has obtained final registration for the basic product, the registrant may then supplementally distribute his/her product. One form must be submitted for each distributor product and must be signed by the distributor involved. The basic registration number and the distributor company number must be shown.

If a registrant has a potential distributor who does not have a company number assigned, she/he should have the distributor apply, on letterhead stationery, to the Registration Division to have a number assigned prior to submitting this form to the agency.

This Notice of Supplemental Distribution must be submitted by the basic registrant. The completed form must have the concurrence and signature of both the registrant and the distributor.

EPA Registration Number of Product 70506-57	Distributor Company Number 51036
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Note: Do not submit distributor product labels

Name of Registered Product (basic product name accepted by EPA) Bifenthrin EC Agricultural Insecticide	Distributor Product Name Bifenthrin 2EC AG
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Name and Address of Distributor (Type; include ZIP code) Micro Flo Company LLC 530 Oak Court Drive, Suite 100 Memphis, TN 38117
--

Read All Conditions Before Signing

1. The distributor product must have the same composition as the basic product.
2. The distributor product must be manufactured and packaged by the same person who manufactures and packages the registered basic product.
3. The labeling for the distributor product must bear the same claims as the basic product, provided, however, that specific claims may be deleted if by doing so, no other changes to the label are necessary.
4. The product must remain in the manufacturer's unbroken container.
5. The label must bear the EPA registration number of the basic product, followed by a hyphen and the distributor's company number.
6. Distributor product labels must bear the name and address of the distributor qualified by such terms as "packed for...", "distributed by..."; or "sold by..." to show that the name is not that of the manufacturer.
7. All conditions of the basic registration apply equally to distributor products. It is the responsibility of the basic registrant to see that all distributor labeling is kept in compliance with requirements placed on the basic product.

Distributor

We intend to market our product under the Distributor Product Name specified above, subject to the conditions specified on this Notice.

Signature and Title of Distributor
Thangy R. Robery Manager of Registrations

Date
6/24/04

Registrant

I agree that the distributor named above may distribute and sell the Distributor Product specified above, subject to the conditions specified on this Notice.

Signature and Title of Registrant
[Signature]

Date
Aug 30, 04



United Phosphorus, Inc.

423 Riverview Plaza
Trenton, NJ 08611
(609) 392-8200 x 18 (phone)
(609) 392-0808 (fax)

Rebecca A. Clemmer
Regulatory Affairs Manager

August 11, 2004

Mr. George LaRocca (PM 13)
Document Processing Desk
Office of Pesticide Programs (7504C)
U.S. Environmental Protections Agency
Ariel Rios Building
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

Re: Request for DER
Bifenthrin EC Agricultural Insecticide (EPA Reg. No. 70506-LI)

Dear Mr. LaRocca:

In your letter dated July 21, 2004 regarding this product's application for registration, you indicated that the eye irritation study UPI submitted (MRID 46183601) had been reviewed and the product classified as Toxicity Category II.

UPI requests a copy of the DER for the study, for our files.

Please contact me if you have any questions.

Very truly yours,

Rebecca A. Clemmer
rclemmer@upi-usa.com



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505C)
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20004

EPA Reg.
Number:

70506-57

Date of Issuance:

AUG 25 2004

NOTICE OF PESTICIDE:

☒ Registration
☐ Reregistration

(under FIFRA, as amended)

Term of Issuance:

Conditional until
November 15, 2004

Name of Pesticide Product:

Bifenthrin EC
Agricultural
Insecticide

Name and Address of Registrant (include ZIP Code):

United Phosphorous, Inc.
423 Riverview Plaza
Trenton, NJ 08611

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) since you have agreed to:

1. Submit and/or cite all data required for registration/reregistration of your product when the Agency requires all registrants of similar products to submit data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

2. You understand that this registration will expire on November 15, 2004. You further understand that it is EPA's stated intent to, by November 15, 2004, complete review of all relevant data and other information that are available to the Agency, and to make FIFRA section 3 (c)(5) or other appropriate regulatory decisions for cotton-use synthetic pyrethroids and other crops conditionally registered based on the Agency's review of such data/information and considering statutory and regulatory criteria for such decisions.

Signature of Approving Official:

Date:

3. You have agreed to submit/cite the data listed below, conducted in accordance with the 40CFR Part 158 Test Guidelines.

Title of Study	Guideline Reference No.	Date Due
Developmental Neurotoxicity	870.6300	May 1, 2005

4. Make the labeling changes listed below before you release the product for shipment:

a. Add the phase "EPA Registration No.70506-57.☒

5. You will submit product information (pounds or gallons produced) for this product for the fiscal year in which the added uses are conditionally registered, in accordance with FIFRA section 29. The fiscal year begins October 1 and ends September 30. The production information will be submitted to the Agency no later than November 15 following the end of the preceding fiscal year.

The information should be submitted to:

U.S. Environment Protection Agency
Office of Pesticide Program (7504C)
Document Processing Desk
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

6. Submit two (2) copies of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Enclosure

RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.

For retail sale to and use only by certified applicators, or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

BIFENTHRIN EC AGRICULTURAL INSECTICIDE**BIFENTHRIN EC AGRICULTURAL INSECTICIDE IS NOT FOR SALE OR USE IN CALIFORNIA.****Active Ingredient:**

By Wt.

Bifenthrin* (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxiate 25.1%
Inert Ingredients:** 74.9%
TOTAL 100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.

**Contain xylene range aromatic solvents

This product contains 2 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN**WARNING****AVISO**

This label must be in the possession of the user at the time of application.

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID

If swallowed	<ul style="list-style-type: none"> Call poison control center or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN

This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided. Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE, CALL THE NATIONAL PESTICIDE INFORMATION CENTER 1-800-858-7378.

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident,
 call CHEMTREC 1-800-424-9300.**

**ACCEPTED
 with COMMENTS
 in EPA Letter Dated**

AUG 25 2004

Manufactured for:
 United Phosphorus, Inc.
 423 Riverview Plaza • Trenton, NJ 08611
 1-800-247-1557 • www.upi-usa.com

EPA Reg. No. 70506-57
 EPA Est. No.
 Net Contents:

**Under the Federal Insecticide,
 Fungicide, and Rodenticide Act
 as amended, for the pesticide
 registered under EPA Reg. No.
 70506-57**

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Warning

WARNING. May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Harmful if absorbed through skin or inhaled. Avoid breathing spray mist. Avoid contact with skin. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Personal Protective Equipment:

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions or category E on an EPA chemical resistance category selection chart.

Handlers who may be exposed to the dilute through application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, or Nitrile rubber or neoprene rubber or Viton.
- Shoes plus socks

Handlers who may be exposed to the concentrate through mixing, loading, application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber, or Viton.
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

Physical/Chemical Hazards

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Resistance: Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities for details.

Bifenthrin EC Agricultural Insecticide MASTER LABEL

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If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control in your area.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Chemical-resistant gloves, such as Barrier Laminate or Nitrile Rubber or Neoprene Rubber or Viton.
- Shoes plus socks.

STORAGE AND DISPOSAL

Pesticide Storage: Do not freeze. Do not store below 40°F. If crystals are observed, warm material to above 60°F by placing in warm location. Shake or roll container periodically to redissolve solids.

Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

To Confine Spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Disposal: Metal or Plastic Container: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Returnable, Refillable Containers: Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

Chemigation Use Directions

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

For LEPA irrigation a minimum of 0.75 inch of water per acre is recommended. Where non-emulsified oils are used as the diluent, 1 to 2 pints per acre is recommended.

Results from utilizing chemigation have been variable and depend upon the set up and calibration of equipment. Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. Contact your State Agricultural Extension Service specialists, equipment manufacturers or other experts for consultation on the suitability of the equipment set up to obtain effective control of the target insect pests.

A person knowledgeable of the chemigation system and responsible for its operations, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent areas.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Bifenthrin EC Agricultural Insecticide should be applied continuously for the duration of the water application. Bifenthrin EC Agricultural Insecticide should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation, a minimum of 0.5 inch per acre of irrigation water is recommended. Agitation generally is not required when a suitable diluent is used. A diluent test should be conducted to ensure that phase separation will not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control.

Spray Drift Precautions

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES; RESERVOIRS; RIVERS; PERMANENT STREAMS; MARSHES OR NATURAL PONDS; ESTUARIES AND COMMERCIAL FISH FARM PONDS.

Do not apply by ground equipment within 25 feet, or by air within 150 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds. Increase the buffer zone to 450 feet when ultra low volume (ULV) application is made in cotton. Use of ultra low volume (ULV) application on corn and hops is prohibited.

For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.

Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.

Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

Make aerial or ground applications when the wind velocity favors on target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.

Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Do not cultivate within 10 feet of the aquatic areas so as to allow growth of a vegetative filter strip.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.

Do not make aerial or ground applications during temperature inversions. Do not make aerial or ground applications to corn if heavy rainfall is imminent. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

Rotational Crops

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days after the last application.

Tank-Mixture

Bifenthrin EC Agricultural Insecticide may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products. Test for compatibility of products before mixing.

Application Instructions

Rate of application is variable according to pest pressure, timing of sprays, and field scouting. Use lower rates under light to moderate infestations; higher rates under heavy insect pressure and for mite control. Arid climates generally require higher rates.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip.

In New York State this product may not be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

INDEX TO CROPS LISTED ON THIS LABEL

Artichoke
Brassicas
Caneberries
Canola, Crambe, Rapeseed
Citrus
Cotton
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (At Plant Use)
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (PRE & PPI)
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (Foliar Use)
Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (At Plant Use)
Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (Foliar Use)
Cucurbits
Eggplant
Grapes
Hops
Lettuce, Head
Pears
Peppers, Bell and Non-Bell
Spinach
Succulent Peas and Beans
Tomatoes

ARTICHOKE

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Cribrate Weevil Artichoke Plume Moth	0.10	6.4	<p>Apply when pest population reaches damaging threshold and repeat as necessary to maintain control, but not more often than 15 day intervals.</p> <p>Application by ground: Apply a full cover spray in a minimum of 75 gallons of finished spray per acre.</p> <p>Application by air: Apply specified dosage in a minimum of 10 gallons per acre.</p> <p>Do not exceed 0.5 lb. AI/A per season.</p> <p>A 5-day preharvest interval must be observed.</p>

BRASSICAS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Head and Stem Brassica Vegetables including: Broccoli Chinese Broccoli (gai lon, white flowering broccoli) Brussels Sprouts Cauliflower Cavalo Broccolo Kohlrabi Cabbage Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy)	Cutworms Corn Earworm Tobacco Budworm Saltmarsh Caterpillar Leafhoppers Flea Beetles Imported Cabbageworm Cucumber Beetles Aphids Whitefly Armyworms Loopers Stink Bugs Crickets Ground Beetles Thrips Wireworm (Adults) Diamondback Moth	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not apply more than 0.5 lb active ingredient (1 quart) per acre per season.</p> <p>Do not make more than 5 applications after bloom.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply within 7 days of harvest.</p>
	Banks Grass Mite Twospotted Spider Mite Pacific Spider Mite Carmin Mite Lygus spp.	0.08-0.10	5.12-6.4	

CANE BERRIES

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Caneberries including: Blackberries Bingleberries Dewberries Lowberries Marionberries Olallieberries Youngberries Loganberries Raspberries	Leafrollers Orange Tortrix Root Weevils	0.05-0.10	3.2-6.4	Apply by air or ground equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons per acre by air and 50 gallons per acre by ground). One application may be made pre-bloom and a second application may be made post bloom. Do not exceed 0.2 lb. AI/A per season. Do not apply within 3 days of harvest.
	Spider Mites	0.10	6.4	

CANOLA, CRAMBE, RAPESEED

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Cutworms Diamondback Moth Loopers Other Lepidopterous Larvae Flea Beetle Flea Hopper Grasshopper Plant Bug Stink Bugs Seedpod Weevil Thrips Whitefly Armyworms	0.033-0.04	2.1-2.6	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not apply more than 0.08 lb active ingredient (5.12 ounces formulated product) per acre per season. Do not make applications less than 14 days apart. Do not apply within 35 days of harvest.

CITRUS

PEST	DOSAGE	REMARKS AND RESTRICTIONS
<p><i>Diaprepes</i> Root Weevil (<i>Diaprepes abbreviatus</i>)</p> <p>Fire Ants</p> <p>Asian Cockroach</p>	<p>16-32 ounces (0.25-0.50 pound active) per acre</p>	<p>Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer.</p> <p>Peak emergence of <i>Diaprepes</i> root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of <i>Diaprepes</i> root weevil may also occur in the fall.</p> <p>If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 32 fluid ounces formulated product should be used to obtain the longest residual management of <i>Diaprepes</i> root weevil.</p> <p>If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 16 fluid ounces formulated product can be applied early season and 16 fluid ounces formulated product can be applied later in the season.</p> <p>If emergence extends beyond the residual protection of Bifenthrin EC, grower is advised to use additional management strategies (i.e. foliar adult control or soil larvae control such as nematodes). Contact your state agricultural Extension Specialist as to the recommendation suited for local conditions.</p> <p>Do not apply through irrigation systems.</p> <p>Do not allow any application of Bifenthrin EC to contact fruit or foliage.</p> <p>Do not apply more than a total of 32 fluid ounces of formulated product (0.5 lb. a.i.) per acre per year.</p> <p>Apply the specified dosage in a minimum of 30 gallons of finished spray per acre.</p> <p>Ground application only. Do not apply by air.</p> <p>Do not apply within 1 day of harvest.</p>

COTTON

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	0.02-0.10	1.3-6.4	<p>Bifenthrin EC may be applied in water or refined vegetable oil (soybean/cottonseed).</p> <p>Application in Water: Apply in a minimum of 5 gallons per acre with ground equipment or 1 gallon per acre by aircraft. When applying by air, 1 quart of emulsified oil may be substituted for one quart of water in the finished spray.</p> <p>ULV Application: Apply the recommended rate of Bifenthrin EC in refined vegetable oil in a minimum of 1 quart of finished spray per acre with aircraft calibrated to give adequate coverage.</p> <p>To Control Boll Weevil: Apply Bifenthrin EC at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.</p> <p>To Control Mites and Aphids: Apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is established.</p> <p>Do not apply more than 0.5 pound active ingredient per acre per season.</p> <p>Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include Ambush®, Ammo®, Asana® XL, Baythroid®, Capture®, Danitol®, Karate®, Mustang®, and Scout X-TRA®.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed.</p> <p>Do not apply within 14 days of harvest.</p>
Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm Whitefly Yellow Striped Armyworm	0.04-0.10	2.6-6.4	
Beet Armyworm Carmine Spider Mite Lygus spp. Pink Bollworm Twospotted Spider Mite	0.06-0.10	3.8-6.4	

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(AT PLANT USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
Corn Rootworm, Larvae Northern Southern Western	0.0046 lb AI per 1,000 linear feet of row	0.30 fluid ounces per 1,000 linear feet of row	Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the Bifenthrin EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre. Mix Bifenthrin EC with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Bifenthrin EC then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.
Army Cutworm Curworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 to 0.0046 lb AI per 1,000 linear feet of row	0.15 to 0.30 fluid ounces per 1,000 linear feet of row	Applications of Bifenthrin EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Bifenthrin EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application. Do not apply to soil where there is greater than 30% cover of crop residue remaining. Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment. Do not apply more than 0.1 pound active per acre per season as an at plant application. Do not apply within 30 days of harvest.
Row Spacings (inches)			40 38 36 30
Bifenthrin EC Agricultural Insecticide (pounds ai per acre)			0.060 0.064 0.069 0.080
Bifenthrin EC Agricultural Insecticide (formulated product, ounces per acre)			3.9 4.1 4.4 5.12

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(PRE & PPI)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
Black Cutworm White Grub Wireworm Seedcorn Maggot Armyworm spp. Stalkborer	0.047 to 0.062 pound AI/A Pre- Plant Incorporated (PPI)	3 to 4 fl. oz./A Pre- Plant Incorporated (PPI)	The 3-4 oz./A rate must be applied as PPI and can be tankmixed and applied with PPI herbicides. Incorporation of Bifenthrin EC should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.
Black Cutworm Armyworm spp. Stalkborer	0.040 LB AI/A Pre- emergence (PRE)	2.56 FL. OZ./A Pre- emergence (PRE)	The 2.56 oz./A rate may be applied PRE and can be tankmixed and applied with PRE herbicides.

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(FOLIAR USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2-5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment. To improve control by aircraft, use 5 gallons of finished spray per acre particularly when initial populations are heavier than normal. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To Control Ear-Attacking Pests: Apply Bifenthrin EC just before silking and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make application for corn borer control with initial application at or shortly before egg hatch.</p> <p>For Control of Other Insect Pests: Apply when pests first appear and repeat as necessary.</p> <p>For Control of Mites: Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form prior to leaf damage or discoloration and before wide-spread mite dispersal throughout the canopy.</p> <p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 lb active per acre in tank mixture has demonstrated good control under these conditions.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	<p>For Mite Control in Texas, New Mexico, Oklahoma, and Arizona: Apply in a minimum of 5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment.</p> <p>Do not apply more than 0.3 pound active per acre per season including pre & ppi, at plant plus foliar applications.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of Bifenthrin EC Agricultural Insecticide on corn is prohibited in all coastal counties.</p> <p>Do not apply within 30 days of harvest.</p>

SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(AT PLANT USE)

PEST	DOSAGE		REMARKS AND RESTRICTIONS
Corn Rootworm, Larvae Northern Southern Western	0.0046 pound active per 1,000 linear feet of row	0.30 fluid ounces per 1,000 linear feet of row	<p>Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the Bifenthrin EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre.</p> <p>Mix Bifenthrin EC with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Bifenthrin EC then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.</p>
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 to 0.0046 pound active per 1,000 linear feet of row	0.15 to 0.30 fluid ounces per 1,000 linear feet of row	<p>Applications of Bifenthrin EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Bifenthrin EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.</p> <p>Do not apply to soil where there is greater than 30% cover of crop residue remaining.</p> <p>Do not apply within 30 days of harvest.</p> <p>Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</p> <p>Do not apply more than 0.1 pound active per acre per season as an at plant application.</p>
Row Spacings (inches)			40 38 36 30
Bifenthrin EC (pounds ai per acre)			0.060 0.064 0.069 0.080
Bifenthrin EC (formulated ounces per acre)			3.9 4.1 4.4 5.12

PEARS

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Coddling Moth Cutworms Green Fruitworm Leafhoppers Leafminers Leafrollers Lygus spp. Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs Tarnished Plant Bugs	0.04 to 0.2	2.6 to 12.8	<p>Application by ground: Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray in sufficient water to provide thorough coverage.</p> <p>Application by air: Apply the specified dosage in a minimum of 10 gallons per acre by air.</p> <p>Do not apply more than 0.5 pound active per acre per season with no more than 0.45 pound active per acre applied after petal fall.</p> <p>Apply as necessary to maintain control using a minimum of 30 day spray interval.</p> <p>Do not graze livestock in treated orchards or cut treated cover crops for feed.</p>
Twospotted Spider Mite Yellow Mite	0.06 to 0.2	8.8 to 12.8	Apply up to 14 days prior to harvest.
European Red Mite	0.08 to 0.2	5.12 to 12.8	

PEPPERS, BELL AND NON-BELL

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	0.033-0.1	2.1-6.4	<p>Apply using sufficient water to obtain uniform coverage. Apply as needed. Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply more than 0.20 pound active ingredient per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>
Lygus spp. Broad Mite Carmine Mite Twospotted Spider Mite	0.8-0.10	5.12-6.4	

SPINACH

PESTS	DOSAGE	REMARKS AND RESTRICTIONS
Colorado Potato Beetle Tomato Pinworm Tomato Hornworm Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	2.1 to 6.4 ounces (0.033 to 0.10 pound active) per acre	For control of whiteflies apply foliar treatments of Bifenthrin EC by ground or air at rates of up to 0.4 pt. (0.1 lb active) per acre at minimum 7-day intervals up to a maximum of 4 applications. For control of fire ants apply Bifenthrin EC to the soil (at planting) or as a foliar treatment by ground or air at rates of up to 0.4 pt. (0.1 lb active) per acre at minimum 7-day intervals up to a maximum of 4 applications. Apply the specified dosage in 5-50 gallons of finished spray per acre by air or 10-50 gallons of finished spray per acre by ground. Do not make applications less than 7 days apart.
Broad Mite Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus spp. Fire Ants	5.12 to 6.4 ounces (0.08 to 0.10 pound active) per acre	Do not apply more than 0.4 pounds active ingredient per acre per season. Do not apply within 40 days of harvest.

SUCCULENT PEAS AND BEANS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB A/A	FL OZ/A	
Pea (Pisum spp.)	Flea Beetle	0.025-0.10	1.6-6.4	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.
Dwarf pea	Grasshoppers			
Edible-pod pea	Aster			
English pea	Leafhopper			
Garden pea	Leafhoppers			
Green pea	Aphids	0.033-0.10	2.1-6.4	Do not apply more than 0.2 lb active ingredient (12.8 ounces formulated product) per acre per season. Do not apply within 3 days of harvest
Snow pea	Beet-Armyworm			
Sugar snap pea	Fall Armyworm			
Pigeon pea	Southern			
Bean (Phaseolus spp.):	Armyworm			
Broadbean	Yellowstriped			
(succulent)	Armyworm			
Lima bean	Bean Leaf			
(green)	Beetle			
Runner bean	Cucumber			
Snap bean	Beetles			
Wax bean	Japanese Beetle			
Bean (Vigna spp.):	(Adult)			
Asparagus bean	Sap Beetle			
Blackeyed pea	Plant Bug			
Chinese longbean	Stink Bugs			
Cowpeas	Tarnished Plant			
Moth bean	Bug			
Southern pea	Alfalfa			
Yardlong bean	Caterpillar			
Jackbean	Cloverworm			
Soybean	European Corn			
(immature seed)	Borer			
Sword bean	Cutworms			
	Western Bean			
	Cutworm			
	Corn Earworm			
	Loopers			
	Corn Rootworm			
	(Adult)			
	Thrips			
	Webworms			
	Pea Weevil			
	Pea Leaf Weevil			
	Whitefly			
	Banks Grass			
	Mite			
	Twospotted			
	Spider Mite			
	Carmin Mite			
	Lygus spp.			

TOMATOES

PEST	DOSAGE	REMARKS AND RESTRICTIONS
Aphids Armyworms – Including: Beat Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm Bean Leaf Beetle Cabbageworm Carmin Mite Cloverworm Corn Earworm Corn Rootworm Cucumber Beetles Cutworms Diamondback Moth European Corn Borer Flea Beetles Flea Hopper Grasshopper Japanese Beetle (Adult) Leafhoppers Loopers Lygus spp. Melonworm Pea Weevil Pea Leaf Weevil Pickleworm Plant Bug Rindworm Salt Marsh Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink Bug spp. Tobacco Budworm Tarnished Plant Bug Thrips Two Spotted Spider Mite Whitefly	2.1-5.2 fluid ounces (0.033-0.08 pound active) per acre	Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment. Thorough coverage is essential to achieve control. Do not make applications less than 10 days apart. A maximum of 4 applications may be applied per season. Do not apply within 1 day of harvest.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus and Seller harmless for any claims relating to such factors. United Phosphorus warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or United Phosphorus, and Buyer and User assume the risk of any such use. UNITED PHOSPHORUS MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent allowed by law, United Phosphorus or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UNITED PHOSPHORUS AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UNITED PHOSPHORUS OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

United Phosphorus and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of United Phosphorus.

Ammo, Capture, Mustang – trademarks of FMC Corporation
Ambush, Karate – trademarks of a Syngenta Group Company.
Asana – trademark of E.I. duPont de Nemours & Company
Baythroid – trademark of Bayer
Danitol – trademark of Sumitomo Chemical Company, Ltd.
Scout Xtra – trademark of Hoechst Schering Agrevo S.A.

DRAFT 7/26/2004

SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(FOLIAR USE)

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To Control Ear-Attacking Pests: Apply Bifenthrin EC when silking begins and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make 2 applications for corn borer control with the initial application at or shortly before egg hatch.</p> <p>For Control of Other Insect Pests: Apply when pests first appear and repeat as necessary.</p> <p>For Control of Mites: Apply for Banks Grass Mites control when colonies first form from prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	<p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress.</p> <p>Do not make more than 0.2 pounds active ingredient (12.8 ounces formulated product) per acre per season.</p> <p>Do not graze livestock in treated areas of cut treated crops for feed within 1 day of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn of heavy rainfall is imminent.</p> <p>Use of Bifenthrin EC on corn is prohibited in all coastal counties.</p> <p>Do not apply within 1 day of harvest.</p>

CUCURBITS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB A/A	FL OZ/A	
Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Citron melon Cucumber Gherkin Gourd, edible (includes hyloan, cucurza), (<i>Luffa</i> spp.) (includes hechima, Chinese okra), (<i>Momordica</i> spp.) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber) Muskmelon (hybrids and/or cultivars of <i>Cucumis melo</i>) (includes true cantaloupe, cantaloupe casaba, crenshaw melon, golden, pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon) Pumpkin (<i>Cucurbita</i> spp.) Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini) Squash, winter (includes butternut squash, calabaza, hubbard squash (<i>C. mixta</i> ; <i>C. pepo</i>), includes acorn squash, spaghetti squash) Watermelon, (includes hybrids and or varieties of <i>Citrullis</i> spp.)	Aphids Cutworm Cabbage Looper Leafhoppers Cucumber Beetles Squash Bugs Melonworm Pickleworm Plant Bug Stink Bugs Rindworm Squash Vine Borer Armyworms Corn Earworm Tobacco Budworm Grasshopper	0.04-0.10	2.6-6.4	<p>Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 20 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not apply more than 0.3 lb active ingredient (19.2 ounces formulated product) per acre per season.</p> <p>Do not make more than two applications after bloom.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply within 3 days of harvest.</p>
	Whitefly Banks Grass Mite Twospotted Spider Mite Carmine Mite Lygus spp.	0.08-0.10	5.12-6.4	

EGGPLANT

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Colorado Potato Beetle Corn Earworm European Corn Borer Flea Beetle Cabbage Looper Cucumber Beetle Tomato Pinworm Tomato Hornworm Vegetable Leafminer Whitefly Armyworms Plant Bug Stink Bug Thrips	0.033-0.10	2.1-6.4	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not make applications less than 7 days apart. Do not apply more than 0.2 lb active ingredient (12.8 ounces formulated product) per acre per season. Do not apply within 7 days of harvest.
Banks Grass Mite Twospotted Spider Mite Carmin Mite Pacific Spider Mite Lygus spp.	0.08-0.10	5.12-6.4	

GRAPES


PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Eastern Grape Leafhopper Variegated Leafhopper Western Grape Leafhopper	0.05 to 0.10	3.2 to 6.4	Apply in a minimum of 10 gallons of finished spray by air or in a minimum of 25 gallons of finished spray with ground equipment. When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray.
Black Vine Weevil Glaswinged Sharpshooter Twospotted Spider Mite	0.10	6.4	Thorough coverage is essential to achieve control. When pest pressure is moderate to severe, use higher rate. Do not apply more than 0.10 lb ai per acre per season. Do not apply within 30 days of harvest.

HOPS

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Armyworms Cutworms Leafrollers Loopers	0.06-0.1	3.8-6.4	<p>Do not exceed 0.1 lb ai per acre per application.</p> <p>Do not exceed 0.3 lb ai per acre per season.</p> <p>A spray interval of 21 days between applications must be maintained.</p> <p>A 14 day pre-harvest interval must be observed.</p>
Root Weevils	0.05-0.1	3.2-6.4	
Twospotted spider mite	0.1	6.4	<p>Application by ground: For best results, full coverage is essential. Early season recommend 100-150 gallons of spray per acre. Late season recommend 200-250 gallons of spray per acre.</p> <p>For Root Weevil control, make a directed spray to the base of the plant. Spray up the vine 3 feet and the soil surface 1.5 to 2 feet on either side of the plant.</p> <p>Application by air for late season control of twospotted spider mites: Apply no less than 6.4 oz (0.1 lb ai) per application in a minimum of 10 gallons per acre.</p> <p>Use of ultra low volume (ULV) application on hops is prohibited.</p>

LETTUCE, HEAD

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Armyworms Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink Bug spp. Tobacco Budworm Whitefly	0.033-0.10	2.1-6.4	<p>Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment and 5 gallons per acre by air. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not make applications less than 7 days apart.</p> <p>A maximum of 0.5 lb active ingredient may be applied per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>
Lygus, spp. Carmin Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	

 United States Environmental Protection Agency Washington, DC 20460	<input type="checkbox"/> Registration	OPP Identifier Number
	<input type="checkbox"/> Amendment	
	<input checked="" type="checkbox"/> Other	

Application for Pesticide – Section I

1. Company/Product Number 70506-LT; 70506-LI	2. EPA Product Manager LaRocca	3. Proposed Classification <input type="checkbox"/> None <input checked="" type="checkbox"/> Restricted
4. Company/Product (Name) Bifenthrin EC Agricultural Insecticide Bifenthrin EC-CA Agricultural Insecticide	PM # 13	
5. Name and Address of Applicant (Include ZIP Code) United Phosphorus, Inc. 423 Riverview Plaza Trenton, NJ 08611 <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg No. Product Name

Section - II


<input type="checkbox"/> Amendment – Explain below <input checked="" type="checkbox"/> Resubmission in response to Agency letter dated <u>7/21/2004</u> <input type="checkbox"/> Notification – Explain below	<input type="checkbox"/> Final printed labels in response to Agency letter dated "Me Too" Application <input type="checkbox"/> Other – Explain below
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Explanation: Use additional page(s) if necessary. (For Section I and Section II.)

Section III

1. Material This Product Will be Packaged in:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No *Certification must be submitted	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" Unit Packaging wgt.	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" Package wgt.	No. per container	<input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 1qt, 3 qt, 1 gal		5. Location of label directions <input checked="" type="checkbox"/> On Label <input checked="" type="checkbox"/> On Label accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other _____					

Section IV

1. Contact Person (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)					
Name Elizabeth Anne Brown		Title ChemReg International, LLC Authorized Agent		Telephone No. (Include Area Code) 703-492-7905	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law					6. Date Application Received (Stamped)
2. Signature 		3. Title ChemReg International, LLC Authorized Agent			
4. Typed Name Elizabeth Anne Brown		5. Date 7/28/2004			

1990 OLD BRIDGE ROAD, SUITE 201
LAKE RIDGE, VIRGINIA 22192-2383

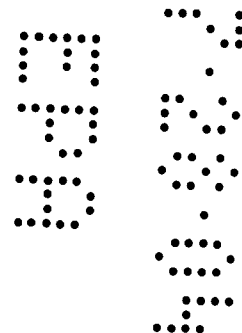
DIRECT: 703-492-7905
MAIN: 703-492-0445
Fax: 703-492-0668

E-MAIL: brown@chemreg.com
WEB SITES: www.chemreg.com
www.pesticide.net

ELIZABETH A. BROWN, PH.D.

July 28, 2004

Document Processing Desk
U.S. Environmental Protection Agency (7505C)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall 2
1801 South Bell Street
Arlington, VA 22202-4501



Attn: George LaRocca (PM 13)

Re: Bifenthrin EC Agricultural Insecticide EPA File Symbol 70506-LT
Bifenthrin EC-CA Agricultural Insecticide EPA File Symbol 70506-LI
Response to Agency Letter of July 21, 2004

Dear George:

On behalf of our client, United Phosphorus, Inc. (UPI), this submission is in response to the Agency letter of July 21, 2004.

Agency letters point 1: UPI agrees to the terms and conditions that have been imposed on registrations of similar synthetic pyrethroid products. As discussed with you on July 26, 2004, those terms and conditions are being addressed by studies submitted by the Pyrethroid Working Group. UPI has addressed those studies and requirements on its data matrices and in its offers to pay data compensation and continues to discuss any additional requirements with that submitter.

Agency letters point 2: UPI previously has offered to share in the cost of developing the data to fulfill the requirement for a developmental neurotoxicity study (OPPTS 870.6300).

Enclosed please find revised draft labeling (5 copies plus one redline copy to highlight the changes) to address the required labeling revisions for each 70506-LT and 70506-LI (Agency letters point 3)

CONSULTANTS TO SUCCESSSM

Over One Hundred and Fifty Years of Combined Experience Assisting Chemical, Pesticide, Bio-Chemical and Life Science Companies on a Wide Range of Issues, Including Regulatory Strategies, Registration, Data Support and Compensation, Quality Assurance, Study Design and Scientific Matters.

Letter to G. LaRocca, July 28, 2004, page 2

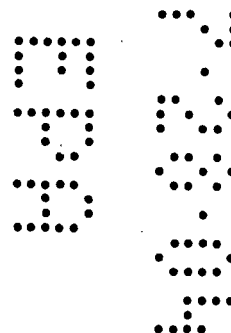
Please let me know if you have any questions or if anything else is needed. We look forward to a rapid response to this submission.

Regards,

Elizabeth Anne Brown

Elizabeth Anne Brown

cc: United Phosphorus, Inc.



RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.

For retail sale to and use only by certified applicators, or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

BIFENTHRIN EC AGRICULTURAL INSECTICIDE**BIFENTHRIN EC AGRICULTURAL INSECTICIDE IS NOT FOR SALE OR USE IN CALIFORNIA.****Active Ingredient:****By Wt.****Bifenthrin*** (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate 25.1%**Inert Ingredients**:** 74.9%**TOTAL** 100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.

**Contain xylene range aromatic solvents

This product contains 2 pounds active ingredient per gallon.

**KEEP OUT OF REACH OF CHILDREN
WARNING
AVISO**

This label must be in the possession of the user at the time of application.

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID

If swallowed	<ul style="list-style-type: none"> • Call poison control center or doctor immediately for treatment advice. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN

This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided. Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE, CALL THE NATIONAL PESTICIDE INFORMATION CENTER 1-800-858-7378.

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident,
call CHEMTREC 1-800-424-9300.**



Manufactured for:
United Phosphorus, Inc.
423 Riverview Plaza • Trenton, NJ 08611
1-800-247-1557 • www.upi-usa.com

EPA Reg. No. 70506-57
EPA Est. No.
Net Contents:

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Warning

WARNING. May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Harmful if absorbed through skin or inhaled. Avoid breathing spray mist. Avoid contact with skin. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Avoid contact with skin. Wear protective eyewear. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Personal Protective Equipment:

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions or category E on an EPA chemical resistance category selection chart.

Handlers who may be exposed to the dilute through application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, or Nitrile rubber or neoprene rubber or Viton.
- Shoes plus socks

Handlers who may be exposed to the concentrate through mixing, loading, application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber, or Viton.
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

Physical/Chemical Hazards

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Resistance: Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control in your area.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Chemical-resistant gloves, such as Barrier Laminate or Nitrile Rubber or Neoprene Rubber or Viton.
- Shoes plus socks.

STORAGE AND DISPOSAL

Pesticide Storage: Do not freeze. Do not store below 40°F. If crystals are observed, warm material to above 60°F by placing in warm location. Shake or roll container periodically to redissolve solids.

Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

To Confine Spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Disposal: Metal or Plastic Container: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Returnable, Refillable Containers: Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

Chemigation Use Directions

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

For LEPA irrigation a minimum of 0.75 inch of water per acre is recommended. Where non-emulsified oils are used as the diluent, 1 to 2 pints per acre is recommended.

Results from utilizing chemigation have been variable and depend upon the set-up and calibration of equipment. Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. Contact your State Agricultural Extension Service specialists, equipment manufacturers or other experts for consultation on the suitability of the equipment set up to obtain effective control of the target insect pests.

A person knowledgeable of the chemigation system and responsible for its operations, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent areas.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Bifenthrin EC Agricultural Insecticide should be applied continuously for the duration of the water application. Bifenthrin EC Agricultural Insecticide should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation, a minimum of 0.5 inch per acre of irrigation water is recommended. Agitation generally is not required when a suitable diluent is used. A diluent test should be conducted to ensure that phase separation will not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control.

Spray Drift Precautions

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES; RESERVOIRS; RIVERS; PERMANENT STREAMS; MARSHES OR NATURAL PONDS; ESTUARIES AND COMMERCIAL FISH FARM PONDS.

Do not apply by ground equipment within 25 feet, or by air within 150 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds. Increase the buffer zone to 450 feet when ultra low volume (ULV) application is made in cotton. Use of ultra low volume (ULV) application on corn and hops is prohibited.

For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.

Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.

Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

Make aerial or ground applications when the wind velocity favors on target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.

Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Do not cultivate within 10 feet of the aquatic areas so as to allow growth of a vegetative filter strip.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.

Do not make aerial or ground applications during temperature inversions. Do not make aerial or ground applications to corn if heavy rainfall is imminent. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

Rotational Crops

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days ~~following the final application of bifenthrin~~ after the last application.

Tank-Mixture

Bifenthrin EC Agricultural Insecticide may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products. Test for compatibility of products before mixing.

Application Instructions

Rate of application is variable according to pest pressure, timing of sprays, and field scouting. Use lower rates under light to moderate infestations; higher rates under heavy insect pressure and for mite control. Arid climates generally require higher rates.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip.

In New York State this product may not be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

Spray-Drift Precautions

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES; RESERVOIRS; RIVERS; PERMANENT STREAMS; MARSHES OR NATURAL PONDS; ESTUARIES AND COMMERCIAL FISH FARM PONDS.

Do not apply by ground equipment within 25 feet, or by air within 150 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds. Increase the buffer zone to 450 feet when ultra low volume (ULV) application is made in cotton. Use of ultra low volume (ULV) application on corn and hops is prohibited.

For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.

Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.

Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

Make aerial or ground applications when the wind velocity favors on target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.

Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Do not cultivate within 10 feet of the aquatic areas so as to allow growth of a vegetative filter strip.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.

Do not make aerial or ground applications during temperature inversions. Do not make aerial or ground applications to corn if heavy rainfall is imminent. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

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ARTICHOKE

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Cribrate Weevil Artichoke Plume Moth	0.10	6.4	<p>Apply when pest population reaches damaging threshold and repeat as necessary to maintain control, but not more often than 15 day intervals.</p> <p>Application by ground: Apply a full cover spray in a minimum of 75 gallons of finished spray per acre.</p> <p>Application by air: Apply specified dosage in a minimum of 10 gallons per acre.</p> <p>Do not exceed 0.5 lb. AI/A per season.</p> <p>A 5-day preharvest interval must be observed.</p>

BRASSICAS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Head and Stem Brassica Vegetables including: Broccoli Chinese Broccoli (gai lon, white flowering broccoli) Brussels Sprouts Cauliflower Cavalo Broccolo Kohlrabi Cabbage Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy)	Cutworms Corn Earworm Tobacco Budworm Saltmarsh Caterpillar Leafhoppers Flea Beetles Imported Cabbageworm Cucumber Beetles Aphids Whitefly Armyworms Loopers Stink Bugs Crickets Ground Beetles Thrips Wireworm (Adults) Diamondback Moth	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not apply more than 0.5 lb active ingredient (1 quart) per acre per season.</p> <p>Do not make more than 5 applications after bloom.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply within 7 days of harvest.</p>
	Banks Grass Mite Twospotted Spider Mite Pacific Spider Mite Carmin Mite Lygus spp.	0.08-0.10	5.12-6.4	

CANEberries

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Caneberries including: Blackberries Bingleberries Dewberries Lowberries Marionberries Olallieberries Youngberries Loganberries Raspberries	Leafrollers Orange Tortrix Root Weevils	0.05-0.10	3.2-6.4	<p>Apply by air or ground equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons per acre by air and 50 gallons per acre by ground).</p> <p>One application may be made pre-bloom and a second application may be made post bloom.</p> <p>Do not exceed 0.2 lb. AI/A per season.</p> <p>Do not apply within 3 days of harvest.</p>
	Spider Mites	0.10	6.4	

CANOLA, CRAMBE, RAPESEED

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Cutworms Diamondback Moth Loopers Other Lepidopterous Larvae Flea Beetle Flea Hopper Grasshopper Plant Bug Stink Bugs Seedpod Weevil Thrips Whitefly Armyworms	0.033-0.04	2.1-2.6	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not apply more than 0.08 lb active ingredient (5.12 ounces formulated product) per acre per season. Do not make applications less than 14 days apart.</p> <p>Do not apply within 35 days of harvest.</p>

CITRUS

PEST	DOSAGE	REMARKS AND RESTRICTIONS
<p><i>Diaprepes</i> Root Weevil (<i>Diaprepes abbreviatus</i>)</p> <p>Fire Ants</p> <p>Asian Cockroach</p>	16-32 ounces (0.25-0.50 pound active) per acre	<p>Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer.</p> <p>Peak emergence of <i>Diaprepes</i> root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of <i>Diaprepes</i> root weevil may also occur in the fall.</p> <p>If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 32 fluid ounces formulated product should be used to obtain the longest residual management of <i>Diaprepes</i> root weevil.</p> <p>If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 16 fluid ounces formulated product can be applied early season and 16 fluid ounces formulated product can be applied later in the season.</p> <p>If emergence extends beyond the residual protection of Bifenthrin EC, grower is advised to use additional management strategies (i.e. foliar adult control or soil larvae control such as nematodes). Contact your state agricultural Extension Specialist as to the recommendation suited for local conditions.</p> <p>Do not apply through irrigation systems.</p> <p>Do not allow any application of Bifenthrin EC to contact fruit or foliage.</p> <p>Do not apply more than a total of 32 fluid ounces of formulated product (0.5 lb. a.i.) per acre per year.</p> <p>Apply the specified dosage in a minimum of 30 gallons of finished spray per acre.</p> <p>Ground application only. Do not apply by air.</p> <p>Do not apply within 1 day of harvest.</p>

COTTON

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	0.02-0.10	1.3-6.4	<p>Bifenthrin EC may be applied in water or refined vegetable oil (soybean/cottonseed).</p> <p>Application in Water: Apply in a minimum of 5 gallons per acre with ground equipment or 1 gallon per acre by aircraft. When applying by air, 1 quart of emulsified oil may be substituted for one quart of water in the finished spray.</p>
Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm Whitefly Yellow Striped Armyworm	0.04-0.10	2.6-6.4	<p>ULV Application: Apply the recommended rate of Bifenthrin EC in refined vegetable oil in a minimum of 1 quart of finished spray per acre with aircraft calibrated to give adequate coverage.</p> <p>To Control Boll Weevil: Apply Bifenthrin EC at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.</p> <p>To Control Mites and Aphids: Apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is established.</p>
Beet Armyworm Carmine Spider Mite Lygus spp. Pink Bollworm Twospotted Spider Mite	0.06-0.10	3.8-6.4	<p>Do not apply more than 0.5 pound active ingredient per acre per season.</p> <p>Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include Ambush®, Ammo®, Asana® XL, Baythroid®, Capture®, Danitol®, Karate®, Mustang®, and Scout X-TRA®.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed.</p> <p>Do not apply within 14 days of harvest.</p>

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(AT PLANT USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS			
Corn Rootworm, Larvae Northern Southern Western	0.0046 lb AI per 1,000 linear feet of row	0.30 fluid ounces per 1,000 linear feet of row	<p>Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the Bifenthrin EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre.</p> <p>Mix Bifenthrin EC with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Bifenthrin EC then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.</p>			
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 to 0.0046 lb AI per 1,000 linear feet of row	0.15 to 0.30 fluid ounces per 1,000 linear feet of row	<p>Applications of Bifenthrin EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Bifenthrin EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.</p> <p>Do not apply to soil where there is greater than 30% cover of crop residue remaining.</p> <p>Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</p> <p>Do not apply more than 0.1 pound active per acre per season as an at plant application.</p> <p>Do not apply within 30 days of harvest.</p>			
Row Spacings (inches)			40	38	36	30
Bifenthrin EC Agricultural Insecticide (pounds ai per acre)			0.060	0.064	0.069	0.080
Bifenthrin EC Agricultural Insecticide (formulated product, ounces per acre)			3.9	4.1	4.4	5.12

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(PRE & PPI)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
Black Cutworm White Grub Wireworm Seedcorn Maggot Armyworm spp. Stalkborer	0.047 to 0.062 pound AI/A Pre- Plant Incorporated (PPI)	3 to 4 fl. oz./A Pre- Plant Incorporated (PPI)	The 3-4 oz./A rate must be applied as PPI and can be tankmixed and applied with PPI herbicides. Incorporation of Bifenthrin EC should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.
Black Cutworm Armyworm spp. Stalkborer	0.040 LB AI/A Pre- emergence (PRE)	2.56 FL. OZ./A Pre- emergence (PRE)	The 2.56 oz/A rate may be applied PRE and can be tankmixed and applied with PRE herbicides.

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(FOLIAR USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2-5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment. To improve control by aircraft, use 5 gallons of finished spray per acre particularly when initial populations are heavier than normal. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To Control Ear-Attacking Pests: Apply Bifenthrin EC just before silking and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make application for corn borer control with initial application at or shortly before egg hatch.</p> <p>For Control of Other Insect Pests: Apply when pests first appear and repeat as necessary.</p> <p>For Control of Mites: Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form prior to leaf damage or discoloration and before wide-spread mite dispersal throughout the canopy.</p> <p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 lb active per acre in tank mixture has demonstrated good control under these conditions.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	<p>For Mite Control in Texas, New Mexico, Oklahoma, and Arizona: Apply in a minimum of 5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment.</p> <p>Do not apply more than 0.3 pound active per acre per season including pre & ppi, at plant plus foliar applications.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of Bifenthrin EC Agricultural Insecticide on corn is prohibited in all coastal counties.</p> <p>Do not apply within 30 days of harvest.</p>

SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(AT PLANT USE)

PEST	DOSAGE		REMARKS AND RESTRICTIONS			
Corn Rootworm, Larvae Northern Southern Western	0.0046 pound active per 1,000 linear feet of row	0.30 fluid ounces per 1,000 linear feet of row	<p>Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the Bifenthrin EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre.</p> <p>Mix Bifenthrin EC with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Bifenthrin EC then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.</p>			
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 to 0.0046 pound active per 1,000 linear feet of row	0.15 to 0.30 fluid ounces per 1,000 linear feet of row	<p>Applications of Bifenthrin EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Bifenthrin EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.</p> <p>Do not apply to soil where there is greater than 30% cover of crop residue remaining.</p> <p>Do not apply within 30 days of harvest.</p> <p>Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</p> <p>Do not apply more than 0.1 pound active per acre per season as an at plant application.</p>			
Row Spacings (inches)			40	38	36	30
Bifenthrin EC (pounds ai per acre)			0.060	0.064	0.069	0.080
Bifenthrin EC (formulated ounces per acre)			3.9	4.1	4.4	5.12

SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(FOLIAR USE)

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To Control Ear-Attacking Pests: Apply Bifenthrin EC when silking begins and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make 2 applications for corn borer control with the initial application at or shortly before egg hatch.</p> <p>For Control of Other Insect Pests: Apply when pests first appear and repeat as necessary.</p> <p>For Control of Mites: Apply for Banks Grass Mites control when colonies first form from prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	<p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress.</p> <p>Do not make more than 0.2 pounds active ingredient (12.8 ounces formulated product) per acre per season.</p> <p>Do not graze livestock in treated areas of cut treated crops for feed within 1 day of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn of heavy rainfall is imminent.</p> <p>Use of Bifenthrin EC on corn is prohibited in all coastal counties.</p> <p>Do not apply within 1 day of harvest.</p>

CUCURBITS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB A/A	FL OZ/A	
Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Citron melon Cucumber Gherkin Gourd, edible (includes hyloan, cucuzza), (<i>Luffa</i> spp.) (includes hechima, Chinese okra), (<i>Momordica</i> spp.) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber) Muskmelon (hybrids and/or cultivars of <i>Cucumis melo</i>) (includes true cantaloupe, cantaloupe casaba, crenshaw melon, golden, pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon) Pumpkin (<i>Cucurbita</i> spp.) Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini) Squash, winter (includes butternut squash, calabaza, hubbard squash (<i>C. mixta</i> ; <i>C. pepo</i>), includes acorn squash, spaghetti squash) Watermelon, (includes hybrids and or varieties of <i>Citrullis</i> spp.)	Aphids Cutworm Cabbage Looper Leafhoppers Cucumber Beetles Squash Bugs Melonworm Pickleworm Plant Bug Stink Bugs Rindworm Squash Vine Borer Armyworms Corn Earworm Tobacco Budworm Grasshopper	0.04-0.10	2.6-6.4	Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 20 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not apply more than 0.3 lb active ingredient (19.2 ounces formulated product) per acre per season. Do not make more than two applications after bloom. Do not make applications less than 7 days apart. Do not apply within 3 days of harvest.
	Whitefly Banks Grass Mite Twospotted Spider Mite Carmine Mite Lygus spp.	0.08-0.10	5.12-6.4	

EGGPLANT

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Colorado Potato Beetle Corn Earworm European Corn Borer Flea Beetle Cabbage Looper Cucumber Beetle Tomato Pinworm Tomato Hornworm Vegetable Leafminer Whitefly Armyworms Plant Bug Stink Bug Thrips	0.033-0.10	2.1-6.4	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not make applications less than 7 days apart. Do not apply more than 0.2 lb active ingredient (12.8 ounces formulated product) per acre per season. Do not apply within 7 days of harvest.
Banks Grass Mite Twospotted Spider Mite Carmin Mite Pacific Spider Mite Lygus spp.	0.08-0.10	5.12-6.4	

GRAPES

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Eastern Grape Leafhopper Variegated Leafhopper Western Grape Leafhopper	0.05 to 0.10	3.2 to 6.4	Apply in a minimum of 10 gallons of finished spray by air or in a minimum of 25 gallons of finished spray with ground equipment. When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray.
Black Vine Weevil Glaswinged Sharpshooter Twospotted Spider Mite	0.10	6.4	Thorough coverage is essential to achieve control. When pest pressure is moderate to severe, use higher rate. Do not apply more than 0.10 lb ai per acre per season. Do not apply within 30 days of harvest.

HOPS

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Armyworms Cutworms Leafrollers Loopers	0.06-0.1	3.8-6.4	<p>Do not exceed 0.1 lb ai per acre per application. Do not exceed 0.3 lb ai per acre per season.</p> <p>A spray interval of 21 days between applications must be maintained.</p> <p>A 14 day pre-harvest interval must be observed.</p> <p>Application by ground: For best results, full coverage is essential. Early season recommend 100-150 gallons of spray per acre. Late season recommend 200-250 gallons of spray per acre.</p> <p>For Root Weevil control, make a directed spray to the base of the plant. Spray up the vine 3 feet and the soil surface 1.5 to 2 feet on either side of the plant.</p> <p>Application by air for late season control of twospotted spider mites: Apply no less than 6.4 oz (0.1 lb ai) per application in a minimum of 10 gallons per acre.</p> <p>Use of ultra low volume (ULV) application on hops is prohibited.</p>
Root Weevils	0.05-0.1	3.2-6.4	
Twospotted spider mite	0.1	6.4	

LETTUCE, HEAD

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Armyworms Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink Bug spp. Tobacco Budworm Whitefly	0.033-0.10	2.1-6.4	<p>Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment and 5 gallons per acre by air. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not make applications less than 7 days apart.</p> <p>A maximum of 0.5 lb active ingredient may be applied per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>
Lygus, spp. Carmin Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	

PEARS

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Coddling Moth Cutworms Green Fruitworm Leafhoppers Leafminers Leafrollers Lygus spp. Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs Tarnished Plant Bugs	0.04 to 0.2	2.6 to 12.8	<p>Application by ground: Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray in sufficient water to provide thorough coverage.</p> <p>Application by air: Apply the specified dosage in a minimum of 10 gallons per acre by air.</p> <p>Do not apply more than 0.5 pound active per acre per season with no more than 0.45 pound active per acre applied after petal fall.</p> <p>Apply as necessary to maintain control using a minimum of 30 day spray interval.</p> <p>Do not graze livestock in treated orchards or cut treated cover crops for feed.</p>
Twospotted Spider Mite Yellow Mite	0.06 to 0.2	8.8 to 12.8	Apply up to 14 days prior to harvest.
European Red Mite	0.08 to 0.2	5.12 to 12.8	

PEPPERS, BELL AND NON-BELL

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	0.033-0.1	2.1-6.4	<p>Apply using sufficient water to obtain uniform coverage. Apply as needed. Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply more than 0.20 pound active ingredient per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>
Lygus spp. Broad Mite Carmine Mite Twospotted Spider Mite	0.8-0.10	5.12-6.4	

SPINACH

PESTS	DOSAGE	REMARKS AND RESTRICTIONS
Colorado Potato Beetle Tomato Pinworm Tomato Hornworm Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	2.1 to 6.4 ounces (0.033 to 0.10 pound active) per acre	<p>For control of whiteflies apply foliar treatments of Bifenthrin EC by ground or air at rates of up to 0.4 pt. (0.1 lb active) per acre at minimum 7-day intervals up to a maximum of 4 applications.</p> <p>For control of fire ants apply Bifenthrin EC to the soil (at planting) or as a foliar treatment by ground or air at rates of up to 0.4 pt. (0.1 lb active) per acre at minimum 7-day intervals up to a maximum of 4 applications.</p> <p>Apply the specified dosage in 5-50 gallons of finished spray per acre by air or 10-50 gallons of finished spray per acre by ground.</p> <p>Do not make applications less than 7 days apart.</p>
Broad Mite Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus spp. Fire Ants	5.12 to 6.4 ounces (0.08 to 0.10 pound active) per acre	<p>Do not apply more than 0.4 pounds active ingredient per acre per season.</p> <p>Do not apply within 40 days of harvest.</p>

SUCCULENT PEAS AND BEANS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Pea (Pisum spp.)	Flea Beetle	0.025-0.10	1.6-6.4	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.
Dwarf pea	Grasshoppers			
Edible-pod pea	Aster			
English pea	Leafhopper			
Garden pea	Leafhoppers			
Green pea	Aphids	0.033-0.10	2.1-6.4	Do not apply more than 0.2 lb active ingredient (12.8 ounces formulated product) per acre per season. Do not apply within 3 days of harvest
Snow pea	Beet Armyworm			
Sugar snap pea	Fall Armyworm			
Pigeon pea	Southern			
Bean (Phaseolus spp.):	Armyworm			
Broadbean	Yellowstriped			
(succulent)	Armyworm			
Lima bean	Bean Leaf			
(green)	Beetle			
Runner bean	Cucumber			
Snap bean	Beetles			
Wax bean	Japanese Beetle			
Bean (Vigna spp.):	(Adult)			
Asparagus bean	Sap Beetle			
Blackeyed pea	Plant Bug			
Chinese longbean	Stink Bugs			
Cowpeas	Tarnished Plant			
Moth bean	Bug			
Southern pea	Alfalfa			
Yardlong bean	Caterpillar			
Jackbean	Cloverworm			
Soybean	European Corn			
(immature seed)	Borer			
Sword bean	Cutworms			
	Western Bean			
	Cutworm			
	Corn Earworm			
	Loopers			
	Corn Rootworm			
	(Adult)			
	Thrips			
	Webworms			
	Pea Weevil			
	Pea Leaf Weevil			
	Whitefly			
	Banks Grass	0.08-0.10	5.12-6.4	
	Mite			
	Twospotted			
	Spider Mite			
	Carmin Mite			
	Lygus spp.			

TOMATOES

PEST	DOSAGE	REMARKS AND RESTRICTIONS
Aphids Armyworms – Including: Beat Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm Bean Leaf Beetle Cabbageworm Carmin Mite Cloverworm Corn Earworm Corn Rootworm Cucumber Beetles Cutworms Diamondback Moth European Corn Borer Flea Beetles Flea Hopper Grasshopper Japanese Beetle (Adult) Leafhoppers Loopers Lygus spp. Melonworm Pea Weevil Pea Leaf Weevil Pickleworm Plant Bug Rindworm Salt Marsh Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink Bug spp. Tobacco Budworm Tarnished Plant Bug Thrips Two Spotted Spider Mite Whitefly	2.1-5.2 fluid ounces (0.033-0.08 pound active) per acre	Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment. Thorough coverage is essential to achieve control. Do not make applications less than 10 days apart. A maximum of 4 applications may be applied per season. Do not apply within 1 day of harvest.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus and Seller harmless for any claims relating to such factors.

United Phosphorus warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or United Phosphorus, and Buyer and User assume the risk of any such use. UNITED PHOSPHORUS MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent allowed by law, United Phosphorus or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UNITED PHOSPHORUS AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UNITED PHOSPHORUS OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

United Phosphorus and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of United Phosphorus.

Ammo, Capture, Mustang – trademarks of FMC Corporation
Ambush, Karate – trademarks of a Syngenta Group Company.
Asana – trademark of E.I. duPont de Nemours & Company
Baythroid – trademark of Bayer
Danitol – trademark of Sumitomo Chemical Company, Ltd.
Scout Xtra – trademark of Hoechst Schering Agrevo S.A.

DRAFT 4/28/04 7/26/2004



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Dr. Elizabeth Brown
Agent for United Phosphorous Inc.
1990 Old Bridge Road, Suite 201
Lake Ridge, VA 22192-2383

JUL 21 2004

Subject: New Product Registration
Bifenthrin EC Agricultural Insecticide
EPA File Symbol: 70506-LT
Your Application Dated January 29, 2004

The product referred to above will be acceptable for registration under FIFRA sec. 3(c)(7) provided that you:

1. Agree in writing to the terms and conditions that have been imposed on registrations of similar synthetic pyrethroid pesticide products. Since 1993, the registrations of synthetic pyrethroid products which are labeled for use on agricultural crops such as cotton have been time-limited and conditioned on the generation of additional data due to Agency concerns regarding the toxicity of these products to aquatic organisms. The terms and conditions of registration were stipulated in the Agency's letter to FMC Corporation, dated November 15, 1993, regarding use of the product Capture 2EC Insecticide/Miticide (EPA Reg. No. 279-3069) on cotton. The current time-limited registration for Capture 2EC expires on November 15, 2004. Since your product is similar to FMC's product, your registration will be time-limited and subject to the same conditions and expiration date. You may contact FMC for additional information regarding this matter.

2. You have applied for the registration of a product containing the active ingredient bifenthrin. The Agency has recently conditioned the original registration of which you are a follow-on with a new data requirement. This registration will also be conditioned with that data requirement. Accordingly, you must take steps to ensure that these required data are submitted. The steps could include generating and submitting data yourself, or you may offer to share with other registrants the cost of testing.

The data requirement which will be imposed on this registration is as follows:

Title of Study	Guideline Reference No.	Study Due Date
Developmental Neurotoxicity	870.6300	May 1, 2005

3. Submit revised labeling incorporating the following revisions:

a. Revise the precautionary statements to read as follows: "May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Harmful if absorbed through the skin or inhaled. Avoid breathing spray mist. Avoid contact with skin. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water before eating, drinking, chewing gum or using tobacco."

b. Revise rotational crop statements to read: "Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days after the last application."

c. Move the spray drift precautions at the bottom of page 8 so they follow Chemigation Use Directions on page 4.

EPA has evaluated the eye study submitted under MRID Number 46183601 and find the test substance severely irritating to the eye. Thus the product has been classified into EPA Toxicity Category II for eye irritation.

EPA Reg. No. "70506-57" is being reserved for this product. You may include the registration number on the revised draft labeling.

Please respond within thirty (30) days from the date of this letter stating your intentions to comply with the information/label requests cited above. If no resubmission is received during this period, the application will be administratively withdrawn.

This letter does not constitute registration, and the product may not be lawfully marketed until it is registered. To expedite handling, please return a copy of this letter with your revised draft labeling. If you have any questions regarding this action, please contact Linda A. DeLuise my team at (703) 305-5428.

Sincerely,

George T. LaRocca
Product Manager 13
Insecticide Branch
Registration Division (7505C)

RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.

For retail sale to and use only by certified applicators, or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

BIFENTHRIN EC AGRICULTURAL INSECTICIDE**BIFENTHRIN EC AGRICULTURAL INSECTICIDE IS NOT FOR SALE OR USE IN CALIFORNIA.**

Active Ingredient:	By Wt.
Bifenthrin* (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate	25.1%
Inert Ingredients**:	74.9%
TOTAL	100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.

**Contain xylene range aromatic solvents

This product contains 2 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN**WARNING****AVISO**

This label must be in the possession of the user at the time of application.

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If swallowed	<ul style="list-style-type: none"> Call poison control center or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
If in eyes	<ul style="list-style-type: none"> <input type="checkbox"/> Hold eye open and rinse slowly and gently with water for 15-20 minutes. <input type="checkbox"/> Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. <input type="checkbox"/> Call a poison control center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
NOTE TO PHYSICIAN	
<p>This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided. Contains petroleum distillates. Vomiting may cause aspiration pneumonia.</p>	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p>	
<p>FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE, CALL THE NATIONAL PESTICIDE INFORMATION CENTER 1-800-858-7378.</p>	

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident,
call CHEMTREC 1-800-424-9300.



Manufactured for:
United Phosphorus, Inc.

Bifenthrin EC Agricultural Insecticide MASTER LABEL

EPA Reg. No. 70506-

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423 Riverview Plaza • Trenton, NJ 08611
1-800-247-1557 • www.upi-usa.com

EPA Est. No.
Net Contents:

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Warning

WARNING. May be fatal if swallowed. Harmful if inhaled, or absorbed through skin or inhaled. Avoid breathing spray mist. Causes moderate eye irritation. Causes substantial but temporary eye injury. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes, or clothing. Do not get in eyes or on clothing. Avoid contact with skin. Wear protective eyewear. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

Personal Protective Equipment:

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions or category E on an EPA chemical resistance category selection chart.

Handlers who may be exposed to the dilute through application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, or Nitrile rubber or neoprene rubber or Viton.
- Shoes plus socks

Handlers who may be exposed to the concentrate through mixing, loading, application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber, or Viton.
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

Physical/Chemical Hazards

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Resistance: Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities for details.

Bifenthrin EC Agricultural Insecticide MASTER LABEL

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If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control in your area.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Chemical-resistant gloves, such as Barrier Laminate or Nitrile Rubber or Neoprene Rubber or Viton.
- Shoes plus socks.

STORAGE AND DISPOSAL

Pesticide Storage: Do not freeze. Do not store below 40°F. If crystals are observed, warm material to above 60°F by placing in warm location. Shake or roll container periodically to redissolve solids.

Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

To Confine Spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Disposal: Metal or Plastic Container: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Returnable, Refillable Containers: Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

Chemigation Use Directions

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

For LEPA irrigation a minimum of 0.75 inch of water per acre is recommended. Where non-emulsified oils are used as the diluent, 1 to 2 pints per acre is recommended.

Results from utilizing chemigation have been variable and depend upon the set up and calibration of equipment. Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. Contact your State Agricultural Extension Service specialists, equipment manufacturers or other experts for consultation on the suitability of the equipment set up to obtain effective control of the target insect pests.

A person knowledgeable of the chemigation system and responsible for its operations, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent areas.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Bifenthrin EC Agricultural Insecticide should be applied continuously for the duration of the water application. Bifenthrin EC Agricultural Insecticide should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation, a minimum of 0.5 inch per acre of irrigation water is recommended. Agitation generally is not required when a suitable diluent is used. A diluent test should be conducted to ensure that phase separation will not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control.

Rotational Crops

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days following the final application of bifenthrin.

Tank-Mixture

Bifenthrin EC Agricultural Insecticide may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products. Test for compatibility of products before mixing.

Application Instructions

Rate of application is variable according to pest pressure, timing of sprays, and field scouting. Use lower rates under light to moderate infestations; higher rates under heavy insect pressure and for mite control. Arid climates generally require higher rates.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip.

In New York State this product may not be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

Spray Drift Precautions

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES; RESERVOIRS; RIVERS; PERMANENT STREAMS; MARSHES OR NATURAL PONDS; ESTUARIES AND COMMERCIAL FISH FARM PONDS.

Do not apply by ground equipment within 25 feet, or by air within 150 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds. Increase the buffer zone to 450 feet when ultra low volume (ULV) application is made in cotton. Use of ultra low volume (ULV) application on corn and hops is prohibited.

For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.

Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.

Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

Make aerial or ground applications when the wind velocity favors on target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.

Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Do not cultivate within 10 feet of the aquatic areas so as to allow growth of a vegetative filter strip.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.

Do not make aerial or ground applications during temperature inversions. Do not make aerial or ground applications to corn if heavy rainfall is imminent. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

INDEX TO CROPS LISTED ON THIS LABEL

Artichoke
Brassicas
Caneberries
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Lettuce, Head
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Tomatoes

ARTICHOKE

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Cribrate Weevil Artichoke Plume Moth	0.10	6.4	<p>Apply when pest population reaches damaging threshold and repeat as necessary to maintain control, but not more often than 15 day intervals.</p> <p>Application by ground: Apply a full cover spray in a minimum of 75 gallons of finished spray per acre.</p> <p>Application by air: Apply specified dosage in a minimum of 10 gallons per acre.</p> <p>Do not exceed 0.5 lb. AI/A per season.</p> <p>A 5-day preharvest interval must be observed.</p>

BRASSICAS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Head and Stem Brassica Vegetables including: Broccoli Chinese Broccoli (gai lon, white flowering broccoli) Brussels Sprouts Cauliflower Cavalo Broccolo Kohlrabi Cabbage Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy)	Cutworms Corn Earworm Tobacco Budworm Saltmarsh Caterpillar Leafhoppers Flea Beetles Imported Cabbageworm Cucumber Beetles Aphids Whitefly Armyworms Loopers Stink Bugs Crickets Ground Beetles Thrips Wireworm (Adults) Diamondback Moth	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not apply more than 0.5 lb active ingredient (1 quart) per acre per season.</p> <p>Do not make more than 5 applications after bloom.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply within 7 days of harvest.</p>
	Banks Grass Mite Twospotted Spider Mite Pacific Spider Mite Carmin Mite Lygus spp.	0.08-0.10	5.12-6.4	

CANEberries

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Caneberries including: Blackberries Bingleberries Dewberries Lowberries Marionberries Ollalieberries Youngberries Loganberries Raspberries	Leafrollers Orange Tortrix Root Weevils	0.05-0.10	3.2-6.4	Apply by air or ground equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons per acre by air and 50 gallons per acre by ground). One application may be made pre-bloom and a second application may be made post bloom. Do not exceed 0.2 lb. AI/A per season. Do not apply within 3 days of harvest.
	Spider Mites	0.10	6.4	

CANOLA, CRAMBE, RAPESEED

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Cutworms Diamondback Moth Loopers Other Lepidopterous Larvae Flea Beetle Flea Hopper Grasshopper Plant Bug Stink Bugs Seedpod Weevil Thrips Whitefly Armyworms	0.033-0.04	2.1-2.6	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not apply more than 0.08 lb active ingredient (5.12 ounces formulated product) per acre per season. Do not make applications less than 14 days apart. Do not apply within 35 days of harvest.

CITRUS

PEST	DOSAGE	REMARKS AND RESTRICTIONS
<p><i>Diaprepes</i> Root Weevil (<i>Diaprepes abbreviatus</i>)</p> <p>Fire Ants</p> <p>Asian Cockroach</p>	16-32 ounces (0.25-0.50 pound active) per acre	<p>Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer.</p> <p>Peak emergence of <i>Diaprepes</i> root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of <i>Diaprepes</i> root weevil may also occur in the fall.</p> <p>If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 32 fluid ounces formulated product should be used to obtain the longest residual management of <i>Diaprepes</i> root weevil.</p> <p>If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 16 fluid ounces formulated product can be applied early season and 16 fluid ounces formulated product can be applied later in the season.</p> <p>If emergence extends beyond the residual protection of Bifenthrin EC, grower is advised to use additional management strategies (i.e. foliar adult control or soil larvae control such as nematodes). Contact your state agricultural Extension Specialist as to the recommendation suited for local conditions.</p> <p>Do not apply through irrigation systems.</p> <p>Do not allow any application of Bifenthrin EC to contact fruit or foliage.</p> <p>Do not apply more than a total of 32 fluid ounces of formulated product (0.5 lb. a.i.) per acre per year.</p> <p>Apply the specified dosage in a minimum of 30 gallons of finished spray per acre.</p> <p>Ground application only. Do not apply by air.</p> <p>Do not apply within 1 day of harvest.</p>

COTTON

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	0.02-0.10	1.3-6.4	<p>Bifenthrin EC may be applied in water or refined vegetable oil (soybean/cottonseed).</p> <p>Application in Water: Apply in a minimum of 5 gallons per acre with ground equipment or 1 gallon per acre by aircraft. When applying by air, 1 quart of emulsified oil may be substituted for one quart of water in the finished spray.</p> <p>ULV Application: Apply the recommended rate of Bifenthrin EC in refined vegetable oil in a minimum of 1 quart of finished spray per acre with aircraft calibrated to give adequate coverage.</p> <p>To Control Boll Weevil: Apply Bifenthrin EC at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.</p> <p>To Control Mites and Aphids: Apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is established.</p>
Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm Whitefly Yellow Striped Armyworm	0.04-0.10	2.6-6.4	
Beet Armyworm Carmine Spider Mite Lygus spp. Pink Bollworm Twospotted Spider Mite	0.06-0.10	3.8-6.4	<p>Do not apply more than 0.5 pound active ingredient per acre per season.</p> <p>Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include Ambush®, Ammo®, Asana® XL, Baythroid®, Capture®, Danitol®, Karate®, Mustang®, and Scout X-TRA®.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed.</p> <p>Do not apply within 14 days of harvest.</p>

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(AT PLANT USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS			
Corn Rootworm, Larvae Northern Southern Western	0.0046 lb AI per 1,000 linear feet of row	0.30 fluid ounces per 1,000 linear feet of row	<p>Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the Bifenthrin EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre.</p> <p>Mix Bifenthrin EC with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Bifenthrin EC then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.</p>			
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 to 0.0046 lb AI per 1,000 linear feet of row	0.15 to 0.30 fluid ounces per 1,000 linear feet of row	<p>Applications of Bifenthrin EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Bifenthrin EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.</p> <p>Do not apply to soil where there is greater than 30% cover of crop residue remaining.</p> <p>Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</p> <p>Do not apply more than 0.1 pound active per acre per season as an at plant application.</p> <p>Do not apply within 30 days of harvest.</p>			
Row Spacings (inches)			40	38	36	30
Bifenthrin EC Agricultural Insecticide (pounds ai per acre)			0.060	0.064	0.069	0.080
Bifenthrin EC Agricultural Insecticide (formulated product, ounces per acre)			3.9	4.1	4.4	5.12

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(PRE & PPI)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
Black Cutworm White Grub Wireworm Seedcorn Maggot Armyworm spp. Stalkborer	0.047 to 0.062 pound AI/A Pre- Plant Incorporated (PPI)	3 to 4 fl. oz./A Pre- Plant Incorporated (PPI)	<p>The 3-4 oz./A rate must be applied as PPI and can be tankmixed and applied with PPI herbicides. Incorporation of Bifenthrin EC should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.</p>
Black Cutworm Armyworm spp. Stalkborer	0.040 LB AI/A Pre- emergence (PRE)	2.56 FL. OZ./A Pre- emergence (PRE)	<p>The 2.56 oz/A rate may be applied PRE and can be tankmixed and applied with PRE herbicides.</p>

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(FOLIAR USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2-5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment. To improve control by aircraft, use 5 gallons of finished spray per acre particularly when initial populations are heavier than normal. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To Control Ear-Attacking Pests: Apply Bifenthrin EC just before silking and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make application for corn borer control with initial application at or shortly before egg hatch.</p> <p>For Control of Other Insect Pests: Apply when pests first appear and repeat as necessary.</p> <p>For Control of Mites: Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form prior to leaf damage or discoloration and before wide-spread mite dispersal throughout the canopy.</p> <p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 lb active per acre in tank mixture has demonstrated good control under these conditions.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	<p>For Mite Control in Texas, New Mexico, Oklahoma, and Arizona: Apply in a minimum of 5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment.</p> <p>Do not apply more than 0.3 pound active per acre per season including pre & ppi, at plant plus foliar applications.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of Bifenthrin EC Agricultural Insecticide on corn is prohibited in all coastal counties.</p> <p>Do not apply within 30 days of harvest.</p>

SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(AT PLANT USE)

PEST	DOSAGE		REMARKS AND RESTRICTIONS			
Corn Rootworm, Larvae Northern Southern Western	0.0046	0.30	<p>Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the Bifenthrin EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre.</p> <p>Mix Bifenthrin EC with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Bifenthrin EC then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.</p>			
	pound active per 1,000 linear feet of row	fluid ounces per 1,000 linear feet of row				
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023	0.15 to	<p>Applications of Bifenthrin EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Bifenthrin EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.</p> <p>Do not apply to soil where there is greater than 30% cover of crop residue remaining.</p> <p>Do not apply within 30 days of harvest.</p> <p>Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</p> <p>Do not apply more than 0.1 pound active per acre per season as an at plant application.</p>			
	to 0.0046 pound active per 1,000 linear feet of row	0.30 fluid ounces per 1,000 linear feet of row				
Row Spacings (inches)			40	38	36	30
Bifenthrin EC (pounds ai per acre)			0.060	0.064	0.069	0.080
Bifenthrin EC (formulated ounces per acre)			3.9	4.1	4.4	5.12

SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(FOLIAR USE)

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To Control Ear-Attacking Pests: Apply Bifenthrin EC when silking begins and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make 2 applications for corn borer control with the initial application at or shortly before egg hatch.</p> <p>For Control of Other Insect Pests: Apply when pests first appear and repeat as necessary.</p> <p>For Control of Mites: Apply for Banks Grass Mites control when colonies first form from prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	<p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress.</p> <p>Do not make more than 0.2 pounds active ingredient (12.8 ounces formulated product) per acre per season.</p> <p>Do not graze livestock in treated areas of cut treated crops for feed within 1 day of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn of heavy rainfall is imminent.</p> <p>Use of Bifenthrin EC on corn is prohibited in all coastal counties.</p> <p>Do not apply within 1 day of harvest.</p>

CUCURBITS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Citron melon Cucumber Gherkin Gourd, edible (includes hyloan, cucuzza), (<i>Luffa</i> spp.) (includes hechima, Chinese okra), (<i>Momordica</i> spp.) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber) Muskmelon (hybrids and/or cultivars of <i>Cucumis melo</i>) (includes true cantaloupe, cantaloupe casaba, crenshaw melon, golden, pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon) Pumpkin (<i>Cucurbita</i> spp.) Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini) Squash, winter (includes butternut squash, calabaza, hubbard squash (<i>C. mixta</i> ; <i>C. pepo</i>), includes acorn squash, spaghetti squash) Watermelon, (includes hybrids and or varieties of <i>Citrullis</i> spp.)	Aphids Cutworm Cabbage Looper Leafhoppers Cucumber Beetles Squash Bugs Melonworm Pickworm Plant Bug Stink Bugs Rindworm Squash Vine Borer Armyworms Corn Earworm Tobacco Budworm Grasshopper	0.04-0.10	2.6-6.4	<p>Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 20 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not apply more than 0.3 lb active ingredient (19.2 ounces formulated product) per acre per season.</p> <p>Do not make more than two applications after bloom.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply within 3 days of harvest.</p>
	Whitefly Banks Grass Mite Twospotted Spider Mite Carmin Mite Lygus spp.	0.08-0.10	5.12-6.4	

EGGPLANT

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Colorado Potato Beetle Corn Earworm European Corn Borer Flea Beetle Cabbage Looper Cucumber Beetle Tomato Pinworm Tomato Hornworm Vegetable Leafminer Whitefly Armyworms Plant Bug Stink Bug Thrips	0.033-0.10	2.1-6.4	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not make applications less than 7 days apart. Do not apply more than 0.2 lb active ingredient (12.8 ounces formulated product) per acre per season. Do not apply within 7 days of harvest.
Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus spp.	0.08-0.10	5.12-6.4	

GRAPES

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
<u>Eastern Grape</u> <u>Leafhopper</u> <u>Variegated Leafhopper</u> <u>Western Grape</u> <u>Leafhopper</u>	<u>0.05 to 0.10</u>	<u>3.2 to 6.4</u>	<u>Apply in a minimum of 10 gallons of finished spray by air or in a minimum of 25 gallons of finished spray with ground equipment.</u> <u>When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray.</u>
<u>Black Vine Weevil</u> <u>Glasywinged</u> <u>Sharpshooter</u> <u>Twospotted Spider</u> <u>Mite</u>	<u>0.10</u>	<u>6.4</u>	<u>Thorough coverage is essential to achieve control.</u> <u>When pest pressure is moderate to severe, use higher rate.</u> <u>Do not apply more than 0.10 lb ai per acre per season.</u> <u>Do not apply within 30 days of harvest.</u>

HOPS

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Armyworms Cutworms Leafrollers Loopers	0.06-0.1	3.8-6.4	Do not exceed 0.1 lb ai per acre per application . Do not exceed 0.3 lb ai per acre per season . A spray interval of 21 days between applications must be maintained.
Root Weevils	0.05-0.1	3.2-6.4	A 14 day pre-harvest interval must be observed.

Twospotted spider mite	0.1	6.4	<p>Application by ground: For best results, full coverage is essential. Early season recommend 100-150 gallons of spray per acre. Late season recommend 200-250 gallons of spray per acre.</p> <p>For Root-Weevil control, make a directed spray to the base of the plant. Spray up the vine 3 feet and the soil surface 1.5 to 2 feet on either side of the plant.</p> <p>Application by air for late season control of twospotted spider mites: Apply no less than 6.4 oz (0.1 lb ai) per application in a minimum of 10 gallons per acre.</p> <p><u>Use of ultra low volume (ULV) application on hops is prohibited.</u></p>
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LETTUCE, HEAD

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Armyworms Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink Bug spp. Tobacco Budworm Whitefly	0.033-0.10	2.1-6.4	<p>Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment and 5 gallons per acre by air. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not make applications less than 7 days apart.</p> <p>A maximum of 0.5 lb active ingredient may be applied per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>
Lygus, spp. Carmin Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	

PEARS

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Coddling Moth Cutworms Green Fruitworm Leafhoppers Leafminers Leafrollers Lygus spp.	0.04 to 0.2	2.6 to 12.8	<p>Application by ground: Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray in sufficient water to provide thorough coverage.</p> <p>Application by air: Apply the specified dosage in a minimum of 10 gallons per acre by air.</p> <p>Do not apply more than 0.5 pound active per acre per season with no more than 0.45 pound active per acre applied after petal fall.</p>

Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs Tarnished Plant Bugs			Apply as necessary to maintain control using a minimum of 30 day spray interval. Do not graze livestock in treated orchards or cut treated cover crops for feed.
Twospotted Spider Mite Yellow Mite	0.06 to 0.2	8.8 to 12.8	Apply up to 14 days prior to harvest.
European Red Mite	0.08 to 0.2	5.12 to 12.8	

PEPPERS, BELL AND NON-BELL

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	0.033-0.1	2.1-6.4	<p>Apply using sufficient water to obtain uniform coverage. Apply as needed. Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply more than 0.20 pound active ingredient per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>
Lygus spp. Broad Mite Carmine Mite Twospotted Spider Mite	0.8-0.10	5.12-6.4	

SPINACH

PESTS	DOSAGE	REMARKS AND RESTRICTIONS
Colorado Potato Beetle Tomato Pinworm Tomato Hornworm Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	2.1 to 6.4 ounces (0.033 to 0.10 pound active) per acre	<p>For control of whiteflies apply foliar treatments of Bifenthrin EC by ground or air at rates of up to 0.4 pt. (0.1 lb active) per acre at minimum 7-day intervals up to a maximum of 4 applications.</p> <p>For control of fire ants apply Bifenthrin EC to the soil (at planting) or as a foliar treatment by ground or air at rates of up to 0.4 pt. (0.1 lb active) per acre at minimum 7-day intervals up to a maximum of 4 applications.</p> <p>Apply the specified dosage in 5-50 gallons of finished spray per acre by air or 10-50 gallons of finished spray per acre by ground.</p> <p>Do not make applications less than 7 days apart.</p>
Broad Mite Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus spp. Fire Ants	5.12 to 6.4 ounces (0.08 to 0.10 pound active) per acre	<p>Do not apply more than 0.4 pounds active ingredient per acre per season.</p> <p>Do not apply within 40 days of harvest.</p>

SUCCULENT PEAS AND BEANS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Pea (Pisum spp.)	Flea Beetle	0.025-0.10	1.6-6.4	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.
Dwarf pea	Grasshoppers			
Edible-pod pea	Aster			
English pea	Leafhopper			
Garden pea	Leafhoppers	0.033-0.10	2.1-6.4	Do not apply more than 0.2 lb active ingredient (12.8 ounces formulated product) per acre per season. Do not apply within 3 days of harvest
Green pea	Aphids			
Snow pea	Beet Armyworm			
Sugar snap pea	Fall Armyworm			
Pigeon pea	Southern			
Bean (Phaseolus spp.):	Armyworm			
Broadbean	Yellowstriped			
(succulent)	Armyworm			
Lima bean	Bean Leaf			
(green)	Beetle			
Runner bean	Cucumber			
Snap bean	Beetles			
Wax bean	Japanese Beetle			
Bean (Vigna spp.):	(Adult)			
Asparagus bean	Sap Beetle			
Blackeyed pea	Plant Bug			
Chinese longbean	Stink Bugs			
Cowpeas	Tarnished Plant			
Moth bean	Bug			
Southern pea	Alfalfa			
Yardlong bean	Caterpillar			
Jackbean	Cloverworm			
Soybean	European Corn			
(immature seed)	Borer			
Sword bean	Cutworms			
	Western Bean			
	Cutworm			
	Corn Earworm			
	Loopers			
	Corn Rootworm			
	(Adult)			
	Thrips			
	Webworms			
	Pea Weevil			
	Pea Leaf Weevil			
	Whitefly			
	Banks Grass	0.08-0.10	5.12-6.4	
	Mite			
	Twospotted			
	Spider Mite			
	Carmine Mite			
	Lygus spp.			

TOMATOES

PEST	DOSAGE	REMARKS AND RESTRICTIONS
Aphids Armyworms – Including: Beat Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm Bean Leaf Beetle Cabbageworm Carmine Mite Cloverworm Corn Earworm Corn Rootworm Cucumber Beetles Cutworms Diamondback Moth European Corn Borer Flea Beetles Flea Hopper Grasshopper Japanese Beetle (Adult) Leafhoppers Loopers Lygus spp. Melonworm Pea Weevil Pea Leaf Weevil Pickleworm Plant Bug Rindworm Salt Marsh Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink Bug spp. Tobacco Budworm Tarnished Plant Bug Thrips Two Spotted Spider Mite Whitefly	2.1-5.2 fluid ounces (0.033-0.08 pound active) per acre	Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment. Thorough coverage is essential to achieve control. Do not make applications less than 10 days apart. A maximum of 4 applications may be applied per season. Do not apply within 1 day of harvest.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus and Seller harmless for any claims relating to such factors. United Phosphorus warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or United Phosphorus, and Buyer and User assume the risk of any such use. UNITED PHOSPHORUS MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

~~In no event shall~~ To the extent allowed by law, United Phosphorus or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UNITED PHOSPHORUS AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UNITED PHOSPHORUS OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

United Phosphorus and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of United Phosphorus.

Ammo, Capture, Mustang – trademarks of FMC Corporation
Ambush, Karate – trademarks of a Syngenta Group Company.
Asana – trademark of E.I. duPont de Nemours & Company
Baythroid – trademark of Bayer
Danitol – trademark of Sumitomo Chemical Company, Ltd.
Scout Xtra – trademark of Hoechst Schering Agrevo S.A.

DRAFT 40/02/03 1/28/04



Can be used for 70506-LT also

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDE AND TOXIC SUBSTANCES
TECHNICAL REVIEW BRANCH

08/APR/2004

MEMORANDUM

Subject: Name of Pesticide Product: Bifenthrin EC-CA Agricultural Insecticide
EPA Reg. No. /File Symbol: 70506-LI
DP Barcode: D298928
Decision No: 334563
PC Code: 128825

From: Masih Hashim, Toxicologist
Technical Review Branch
Registration Division (7505C)

To: Linda Deluise, PM Team 03
Insecticide Branch
Registration Division (7505C)

Applicant: United Phosphorus, Inc.
423 Riverview Plaza
Trenton, NJ 08611

FORMULATION FROM LABEL:

Bifenthrin 25% . This is the only common active ingredient in two products.

ACTION REQUESTED: Similarity action for #70506-LI and #70506-57.

RECOMMENDATIONS: TRB has evaluated the proposed (70506-LI) and the cited (70506-57) products, and found them to be substantially similar. The data can be bridged between them. The Signal Word is Warning.

We have also evaluated the eye study for the product, as requested. The study is acceptable and has Toxicity category II. The product is **severely irritating to the eyes**.

This memorandum pertains only to the decision concerning whether the subject product is substantially similar to the cited product from an acute toxicological view point. For the purposes of this action, TRB has made no determinations of the adequacy of the toxicological data base or the precautionary label of the cited product.

Reviewer: M. Hashim

Date: 08/April/2004

Product Manager (EPA): 03

STUDY TYPE: Primary Eye Irritation-NZW Rabbits; OPPTS 870.2400; OECD 405, Clear light yellow liquid.

TEST MATERIAL: Bifenthrin 25.8%, Solution in water, Lot #5654-40-15.

SYNONYMS: DXP-B-2213-A

CITATION: Merkel, D. (2004). Primary Eye Irritation Study in Rabbits. Product Safety Labs. Dayton, New Jersey 08810. Study No. 14814, dated 1-27-04, MRID 46183601.

SPONSOR: United Phosphorus Limited, Trenton, NJ 08611

EXECUTIVE SUMMARY: Primary eye irritation potential of Bifenthrin (25%) was tested in a study in 3 NZW rabbits (MRID 46183601). The test substance (0.1 g) was instilled into the conjunctival sac of one eye of each of 3 rabbits (Source: Robinson Services, Clemmons, NC). The other eye served as the control. Ocular irritation was evaluated for 10 days.

Ocular irritation subsided within 10 days (Table 1). In this study the test substance is a **severe irritant** to the rabbit eyes. The test substance has EPA Toxicity Category II.

This study is classified as Acceptable. It does satisfy the guideline requirement for a primary eye irritation study (OPPTS 870.2400; OECD 405) in the rabbit.

COMPLIANCE: Signed and dated GLP, Quality Assurance, and Data Confidentiality statements were provided.

RESULTS AND DISCUSSION:**Table 1. No of Animals affected / Total No. of animals**

Lesion	1 hr	24 hrs	48 hrs	72 hrs	day 4	day 7	day 10
corneal opacity	3/3	3/3	3/3	3/3	3/3	2/3	0/3
iritis	3/3	3/3	3/3	1/3	0/3	0/3	0/3
conjunctivitis	3/3	3/3	3/3	3/3	3/3	2/3	0/3

Note: A score of 2 is positive for conjunctiva.

A. Observations - (Table 1) Ocular irritation subsided within ten days. The product is a severe irritant, EPA Category II.

B. Reviewer's Conclusions: The Reviewer agrees with the Study Author's conclusion.

C. Deficiencies : None.

TOX One Liner
D298928
Bifenthrin 25%
Date 08/April/2004

Study /species/ lab/ No./ date	MRID #	Results	Tox Category	Core Grade
primary eye irritation/ rabbit/ Product Safety/ 14814/1-27- 04	46183601	severe irritant	II	A

DATE OUT: 28/ JUNE/ 2004

SUBJECT: **PRODUCT CHEMISTRY REVIEW OF MP [] EP [X]**
DP BARCODE No.: 304200 **File Symbol No.:** 70506-LT
PRODUCT NAME: Bifenthrin EC Agricultural Insecticide
COMPANY: United Phosphorus Inc.
FOOD USE [X] INTEGRATED FORMULATION []
PCC: 128825 **Decision No.** 334427

FROM: Debra Rate
Product Chemistry Team
Technical Review Branch/RD (7505C)

SRM 6.29.04
Debra Rate 6/29/04

TO: Linda DeLuise / George Larocca, RM 13
Insecticide Branch/RD(7505C)

INTRODUCTION:

The registrant has resubmitted a CSF (dated 09/19/03) and MRID No. 461836-00 in support of the registration application for the proposed end-use product in response to Agency letter dated 06/03/04. The product chemistry data were previously submitted under MRID No. 460927-01 and 460927-02. The proposed end-use product has Bifenthrin (Reg. No. 70506-18, 99.4%) as its active ingredient. TRB has been asked to evaluate the MSDS for an inert ingredient used in the formulation of the end-use product to obtain clearance.

SUMMARY OF FINDINGS

1. The proposed end-use product contains Bifenthrin (Reg. No. 70506-18, 99.4%) as its active ingredient (AI) with product label claim of 25.1%.
2. The CSF for basic formulation (dated 09/19/03) is filled out completely and correctly. The nominal concentrations of the AI concurs with the product label claim and is in compliance with PR Notice 91-2. All of the inert ingredients present in the formulation have been cleared by the Agency. The data submitted corresponding to the guideline reference 830.1550 (product identity & composition) and 830.1750 (certified limits) satisfy the data requirements of 40CFR§158.155 and 158.175, respectively.
3. The data submitted corresponding to the guideline reference series 830 Subgroup A were previously accepted.
4. The data submitted corresponding to 830 Series Subgroup B (physical-chemical properties) were previously determined to satisfy the data requirements of 40CFR§158.190, except for storage stability (830.6317) and corrosion characteristics (830.6320). [MRID No. 460927-02]
5. The registrant has stated that the long term studies on storage stability (830.6317) and corrosion characteristics (830.6320) are in progress and the results will be submitted on completion.

BARCODE No.: 304199 **File Symbol No.:** 70506-LT **PRODUCT NAME:** Bifenthrin EC Agricultural Insecticide

CONCLUSIONS:

1. The product chemistry data submitted corresponding to 830 Series Subgroup A are acceptable.
2. With the identity and composition of the previously uncleared inert ingredient, the CSF for basic formulation (dated 09/12/03) is now acceptable.
3. The product chemistry data submitted corresponding to 830 Series Subgroup B are acceptable, except for the storage stability (830.6317) and corrosion characteristics (830.6320). [MRID No. 460927-02].
4. The registrant must submit the results from the storage stability and corrosion characteristic studies upon completion.

DATA PACKAGE BEAN SHEET

Date: 16-Jun-2004

Page 1 of 2

16633

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***** Registration Information *****

Registration: 70506-LT - BIFENTHRIN EC AGRICULTURAL INSECTICIDE

Company: 70506 - UNITED PHOSPHORUS INC

Risk Manager: RM 13 - George Larocca - (703) 305-6100 Room# CM-2 206

Risk Manager Reviewer: Linda DeLuise LDELUISE

Sent Date: _____

Calculated Due Date: _____

Edited Due Date: _____

Type of Registration: Product Registration - Section 3

Action Desc: _____

Ingredients: 128825, Bifenthrin(25.1%)***** Data Package Information *****Expedite: ☐ Yes ☒ NoDate Sent: 16-Jun-2004

Due Back: _____

DP Ingredient: 128825, Bifenthrin

DP Title: _____

CSF Included: ☐ Yes ☒ NoLabel Included: ☐ Yes ☒ No

Parent DP #: _____

Assigned To**Date In****Date Out**Organization: RD / TRBAdministrative Due Date: 13-Nov-2004

Team Name: _____

Negotiated Due Date: _____

Reviewer Name: DEBRA RATE6/23/046/29/04

Projected Completion Date: _____

Contractor Name: _____

***** Studies Sent for Review *****

No Studies

***** Additional Data Package for this Decision *****

Printed on Page 2

***** Data Package Instructions *****

Chem,

Registrant claim that they provided this info in reviewed submission.

DP#: (304200)

*** Additional Data Package for this Decision ***

Decision#: (334427)

DP #	Division/Branch	Date Sent	Date Due	Instructions?		CSF		label	
295141	RD / IB	22-Oct-2003	08-Dec-2003	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
295141	RD / TRB	22-Oct-2003	08-Dec-2003	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
295142	RD / IB	22-Oct-2003	15-Dec-2003	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
295142	RD / TRB	22-Oct-2003	15-Dec-2003	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
298929	RD / IB	19-Feb-2004	31-May-2004	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
298929	RD / TRB	19-Feb-2004	31-May-2004	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
298933	RD / IB	19-Feb-2004	24-Jun-2004	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
298933	RD / TRB	19-Feb-2004	24-Jun-2004	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Labeling pulled for further review (98)

Dr. Elizabeth Brown
Agent for United Phosphorous Inc.
1990 Old Bridge Road, Suite 201
Lake Ridge, VA 22192-2383

JUN - 9 2004

Dear Dr. Brown:

Subject: Application for Registration
Bifenthrin EC Agricultural Insecticide
EPA File Symbol 70506-LT
Your Submission dated January 29, 2004

The application referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is not acceptable for the reasons given below:

1. The basic Confidential Statement of Formula, dated 09/19/03, is not acceptable for the following reason: a) One of the inert ingredients has not been cleared by the Agency. see the enclosed Confidential Appendix.

Please respond within seventy five (75) days from the date of this letter stating your intentions to comply with the information/label requests cited above. If no resubmission is received during this period, the application will be administratively withdrawn.

Sincerely,

George T. LaRocca
Product Manager 13
Insecticide Branch
Registration Division (7505C)

Enclosure

DATE OUT: 03/ JUNE/ 2004

NON - FEE

SUBJECT: **PRODUCT CHEMISTRY REVIEW OF MP [] EP [X]**
DP BARCODE No.: 298933 **File Symbol No.:** 70506-LT
PRODUCT NAME: Bifenthrin EC Agricultural Insecticide
COMPANY: United Phosphorus Inc.
FOOD USE [X] INTEGRATED FORMULATION []
PCC: 128825 **Decision No.** 334427

FROM: Debra Rate
Product Chemistry Team
Technical Review Branch/RD (7505C)

SBR 6/3/04
Debra Rate 6/3/04

TO: Linda DeLuise / George Larocca, RM 13
Insecticide Branch/RD(7505C)

INTRODUCTION:

The registrant has resubmitted a CSF (dated 09/19/03) and MRID No. 461836-00 in support of the registration application for the proposed end-use product in response to Agency letter dated 01/06/04. The product chemistry data were previously submitted under MRID No. 460927-01 and 460927-02. The proposed end-use product has Bifenthrin (Reg. No. 70506-18, 99.4%) as its active ingredient. TRB has been asked to evaluate the resubmitted CSF (dated 09/19/03) for the proposed end-use product.

SUMMARY OF FINDINGS

1. The proposed end-use product contains Bifenthrin (Reg. No. 70506-18, 99.4%) as its active ingredient (AI) with product label claim of 25.1%.
2. The CSF for basic formulation (dated 09/19/03) is not filled out completely or correctly. The nominal concentrations of the AI concurs with the product label claim and is in compliance with PR Notice 91-2. All of the inert ingredients present in the formulation have not been cleared by the Agency. The data submitted corresponding to the guideline reference 830.1550 (product identity & composition) does not satisfy the data requirements of 40CFR§158.155.
3. The data submitted corresponding to the guideline reference 830.1750 (certified limits) satisfies the data requirements of 40CFR§158.175. [MRID No. 460927-01]
4. The data submitted corresponding to the guideline reference series 830 Subgroup A were previously accepted except for those pertaining to 830.1550 (product identity and composition) and 830.1600 (description of materials used to produce the product).
5. The data submitted corresponding to 830 Series Subgroup B (physical-chemical properties) were previously determined to satisfy the data requirements of 40CFR§158.190, except for storage stability (830.6317) and corrosion characteristics (830.6320). [MRID No. 460927-02]
6. The registrant has stated that the long term studies on storage stability (830.6317) and corrosion characteristics (830.6320) are in progress and the results will be submitted on completion.

Appendix for the name of the inert ingredient and additional information needed.

BARCODE No.:298933 **File Symbol No.:**70506-LT **PRODUCT NAME:**Bifenthrin EC Agricultural Insecticide

CONCLUSIONS:

1. The product chemistry data submitted corresponding to 830 Series Subgroup A are acceptable, except for the CSF.
2. The basic CSF(dated 09/19/03) is not acceptable for the following reasons:
 - (i). One of the inert ingredients has not been cleared for use by the Agency. See Confidential 3. The product chemistry data submitted corresponding to 830 Series Subgroup B are acceptable, except for the storage stability (830.6317) and corrosion characteristic (830.6320).
4. The registrant must submit the results from the storage stability and corrosion characteristic studies upon completion.

Inert ingredient information may be entitled to confidential treatment

Barcode No.: 298933 File Symbol No.: 70506-LT PRODUCT NAME: Bifenthrin EC Agricultural Insecticide

CONFIDENTIAL APPENDIX:

Inert Ingredient: XXXXXXXXXX

Needed from the registrant are:

- * Composition with Chemical Names
- * CAS Reg. No.
- * % of each component in the mixture equaling 100%

**CHEMICAL NAME/PESTICIDE CHEMICAL CODE (PCC)
REQUEST FORM**

CR# 04-0295

REQUESTOR NAME: Debra Rate

REQUEST DATE: 6/2/04

TEL: (703) 306-0309 ORG.: RD/TRB

ROOM: 204 MAIL CODE: 7505C

(DIV./BR.)

CSF ATTACHED:

- ☒ YES If CSF is attached complete Item A and the chemical name in Item B
☐ NO If CSF is not attached complete Items A through C.

A. INFORMATION REQUIRED:

- ☒ Check Applicable Category
☒ Provide PCC and Tolerance Exemption Status For Food-Use Inert Ingredient(s)
☐ Provide PCC for Non-Food Use Inert Ingredient(s)
☐ Provide PCC for Active Ingredient(s)
☐ Provide PCC for Dye
☐ Determine if Fragrance is Acceptable for Use in Formulation
☐ Other (Describe): _____

B. INGREDIENT INFORMATION:

Ingredient No. 1:

Ingredient No. 2:

Chem. Name: _____

Chem. Name: _____

Trade Name: _____

Trade Name: _____

CAS Reg. No.: _____

CAS Reg. No.: _____

Ingredient No. 3:

Ingredient No. 4:

Chem. Name: _____

Chem. Name: _____

Trade Name: _____

Trade Name: _____

CAS Reg. No.: _____

CAS Reg. No.: _____

C. PESTICIDE PRODUCT INFORMATION:

EPA Reg. No./File Symbol: _____ Product Name: _____

Registrant: _____ Food-Use Pesticide: ☐ YES ☐ NO

Percent in Formulation (For Fragrance/Dyes only): _____ %

INFORMATION REPORTED:

Ingredient No. 1:

Ingredient No. 2:

PCC: _____

PCC: _____

TOL. STATUS: _____

TOL. STATUS: _____

OTHER INF.: _____

OTHER INF.: _____

Completed By: LINDA FAW

Date Completed: 06/02/04

DATA PACKAGE BEAN SHEET

Date: 19-Feb-2004

Page 1 of 2

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#16073***** Registration Information *****

Registration: 70506-LT - BIFENTHRIN EC AGRICULTURAL INSECTICIDE

Company: 70506 - UNITED PHOSPHORUS INC

Risk Manager: RM 13 - George Larocca - (703) 305-6100 Room# CM-2 206

Risk Manager Reviewer: Linda DeLuise LDELUISE

Sent Date: _____

Calculated Due Date: 07-Aug-2004

Edited Due Date: _____

Type of Registration: Product Registration - Section 3

Action Desc: (165) NEW REGISTRATION;OLD INGREDIENT;MINOR CHANGE;

Ingredients: 128825, Bifenthrin(25.1%)

NON - FEE***** Data Package Information *****Expedite: ☐ Yes ☒ No

Date Sent: 19-Feb-2004

Due Back: _____

DP Ingredient: 128825, Bifenthrin

DP Title: _____

CSF Included: ☒ Yes ☐ NoLabel Included: ☒ Yes ☐ No

Parent DP #: _____

Assigned To**Date In****Date Out**

Organization: RD / TRB

Administrative Due Date: 18-Jul-2004

Team Name: ChemNegotiated Due Date: 6-24-04Reviewer Name: Debra N. Bate5/27/046/3/04

Projected Completion Date: _____

Contractor Name: _____

***** Studies Sent for Review *****

No Studies

***** Additional Data Package for this Decision *****

Printed on Page 3

***** Data Package Instructions *****

chem,

resubmit similar to 70506-li

DP#: (298933)

*** Additional Data Package for this Decision ***

Decision#: (334427)

DP #	Division/Branch	Date Sent	Date Due	Instructions?		CSF		label	
295141	RD / IB	19-Feb-2004	19-Feb-2004	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
295141	RD / TRB	19-Feb-2004	19-Feb-2004	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
295142	RD / IB	19-Feb-2004	19-Feb-2004	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
295142	RD / TRB	19-Feb-2004	19-Feb-2004	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
298929	RD / IB	19-Feb-2004	19-Feb-2004	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No
298929	RD / TRB	19-Feb-2004	19-Feb-2004	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Explore Registrations					
Reg Number:	70506-LT	Reg. Type:	Product Registration - Section 3	Status:	Under Review (10-Oct-2003)
Name:	BIFENTHRIN EC AGRICULTURAL INSECTICIDE			<View Registration Details>	
(No New Receipts)					
S:	Submission Type	OPP Rec'd Date	Resubmission	Description	
<div> <div>...Decisions...</div> <div> <div>Data Requirements</div> <div> <div>D: 334427; 70506-LT; 165; NEW REGISTRATION</div> <div>S: 754408 1/30/04; New Registration; 70506</div> <div>S: 747824 10/6/03; New Registration; 70506</div> </div> </div> </div>		<div> <div>S: 754408 Reg #: 70506-LT</div> <div>Submission Type: New Registration</div> <div>Resubmission?: <input checked="" type="radio"/> Yes <input type="radio"/> No</div> <div>Decision #: 334427; 165; NEW REGISTRATION; OLD INGREDIENT; MINOR C</div> <div>Submitter Company: UNITED PHOSPHORUS INC</div> <div>Application Date: 29-Jan-2004</div> <div>OPP Received Date: 30-Jan-2004 Date Sent to Risk manager: 17-Feb-2004</div> <div>Studies Included?: <input type="radio"/> Yes <input checked="" type="radio"/> No Fast Track?: <input type="radio"/> Yes <input checked="" type="radio"/> No</div> <div>Form A Signed?: <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> None Date: </div> <div>Form B Signed?: <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> None Date: </div> <div>Reviewer: DeLuse, Linda</div> <div>Received DT: Editable Due DT: </div> <div>Admin Due DT: 07-Aug-2004 Response: 0, 30-Jan-2004</div> <div>Priority Weight: Priority Points: </div> <div>Comments: response to 1/6/04 letter. Submitted inert ingredient characterization plus acute eye study. Change action code</div> </div>			

DATA PACKAGE BEAN SHEET

Date: 22-Oct-2003

Page 1 of 3

160
#15588***** Registration Information *****

Registration: 70506-LT - BIFENTHRIN EC AGRICULTURAL INSECTICIDE

Company: 70506 - UNITED PHOSPHORUS INC

Risk Manager: RM 03 - Marion - Johnson - (703) 305-6788 Room# CM-2 219

Risk Manager Reviewer: Susan Stanton - SSTANTON

Sent Date: 10-Oct-2003

Calculated Due Date: 04-Jan-2004

Edited Due Date: _____

Type of Registration: Product Registration - Section 3

Action Desc: NEW REGISTRATION;ME-TOO;

Ingredients: 128825

***** Data Package Information *****Expedite: ☐ Yes ☒ No

Date Sent: 22-Oct-2003

Due Back: _____

DP Ingredient: 128825, Bifenthrin

DP Title: New Product Review Request

CSF Included: ☒ Yes ☐ NoLabel Included: ☒ Yes ☐ No

Parent DP #: _____

Assigned To**Date In****Date Out**

Organization: RD / TRB

Administrative Due Date: 06-Dec-2003

Team Name: CHEM

Negotiated Due Date: 12-8-04

Reviewer Name: _____

Projected Completion Date: _____

Tractor Name: _____

***** Studies Sent for Review *****

Printed on Page 2

***** Additional Data Package for this Decision *****

Printed on Page 3

***** Data Package Instructions *****

Please review the submitted product chemistry data, CSF and draft label for this new product and determine whether they are acceptable. The company has cited 279-3069 as being substantially similar. Since they have submitted a complete product chemistry package (i.e., they aren't citing any product chemistry data), we do not need to know whether the two products are substantially similar from a chemistry perspective. We have asked TRB/TOX to determine whether they are substantially similar from a toxicology perspective, since they are citing tox studies for FMC's product.

DATE OUT: 15 Dec 2003

SUBJECT: EP [x] MP [] PRODUCT CHEMISTRY REVIEW
DP BARCODE No.: D295141
REG./File Symbol No.: 70506-LT
PRODUCT NAME: Bifenthrin EC Agricultural Insecticide
COMPANY: United Phosphorus, Inc.
FOOD USE: [X] PC CODE: 128825
Decision No. 334427 Integrated Formulation []

TO: PM #03, Marion Johnson/Susan Stanton
Insecticide Branch
Registration Division (7505C)

FROM: Bruce F. Kitchens, Chemist
Technical Review Branch
Registration Division (7505C)

Bruce F. Kitchens
15 Dec 2003

{ Bm 12/16/03 }

INTRODUCTION:

The registrant, United Phosphorus, Incorporated, is submitting an application for the new end-use product, Bifenthrin EC Agricultural Insecticide. The active ingredient in this product is Bifenthrin (99.4% ai) at a label nominal concentration of 25.1%. This product is intended for use as an insecticide. In support of this request, the registrant has submitted a basic Confidential Statement of Formula (CSF) dated 19 Sept 2003, a draft label, and product chemistry data contained in MRID#s 460927-01 and -02. The Technical Review Branch (TRB) has been asked to review this submission.

SUMMARY OF FINDINGS:

TRB has reviewed this submission and reports the following findings:

1. This product is produced from a registered source of the active ingredient.
2. One inert ingredient is not cleared for use in formulated pesticide products. This inert ingredients is not exempt from the requirement of a food tolerance. The remaining inert ingredients are cleared for use in formulated pesticide products. In addition, these inert ingredients are exempt from the requirement of a food tolerance. See the confidential appendix for details.

3. The nominal concentration of the active ingredient listed on the proposed basic CSF and the draft label are the same.
4. The draft label contains the appropriate storage and disposal statements. In addition, the label contains the appropriate physical and chemical hazard statements.
5. The active ingredients certified limits as proposed on the basic CSF are acceptable.

CONCLUSIONS:

TRB has reviewed this submission and concludes the following:

1. The basic formula CSF for the proposed end-use product, Bifenthrin EC Agricultural Insecticide dated 19 Sept 2003 is not acceptable because the proposed formulation contains an inert ingredient which is not cleared for use in formulated pesticide products. See the confidential appendix for details.
2. The data requirements for product identity and composition (40 CFR 158.155) and description of materials used to produce the product (40 CFR 158.160) are not satisfied because the proposed product contains an inert ingredient which is not cleared for use in formulated pesticide products.

The remaining data requirements specified in 40 CFR 158.165, 158.167, 158.175, and 158.180 with respect to the description of formulation process, discussion of formation of impurities, certified limits, and enforcement analytical method are satisfied.

3. This submission meets the data requirements as specified in 40 CFR 158.190 with respect to physical and chemical properties. The data requirements for storage stability and corrosion characteristics are not satisfied. The registrant indicated that 1-year studies are in progress and will be submitted to the Agency upon completion.

PRODUCT CHEMISTRY DATA (GROUP A)

<u>Chemical IDs/Manufacture/ Analytical Information</u>	<u>Data Required Fulfilled</u>	<u>MRID No.</u>
830-1550 Product Identity and Composition	N	
830-1600 Description of Materials Used to Produce the Product	N	
830-1620 Description of Production Process	NR	
830-1650 Description of Formulation Process	Y	460927-01
830-1670 Discussion of Impurities	Y	460927-01
830-1700 Preliminary Analysis	NR	
830-1750 Certified Limits	Y	460927-01
830-1800 Enforcement Analytical Method	Y	460927-01

PRODUCT CHEMISTRY DATA (GROUP B)

24. Physical/Chemical Properties	Data Required Fulfilled	Value or Qualitative Description	MRID No.
830-6302 Color	Y	Yellow	460927-02
830-6303 Physical State	Y	Liquid	460927-02
830-6304 Odor	Y	Aromatic solvent	460927-02
830-6314 Oxidation/Reduction:Chemical Incompatability	NA	Product does not contain oxidizing or reducing agents	
830-6315 Flammability/Flame Extension	Y	129°F	460927-02
830-6316 Explodability	NA	Product does not contain explosive components	
830-6317 Storage Stability of Product	I	One year study in progress	
830-6319 Miscibility	NA	Product not mixed with petroleum solvents	
830-6320 Corrosion Characteristics	I	One year study in progress	
830-6321 Dielectric Breakdown Constant	NA	Product not used around electrical equipment	
830-7000 pH	Y	4.56 (1% w/w in water)	460927-02
830-7100 Viscosity	Y	6.308 centistokes @ 20°C; 3.69 centistokes @ 40°C	460927-02
830-7300 Density	Y	0.958 g/ml (7.995 lb/gal)	460927-02

Explanations: Y = The Requirements Were Fulfilled; N = The Requirements Were Not Fulfilled; NA = Not Applicable; G = Data Gap; U = Requires Upgrading; I = Incomplete or In Progress; W = Waived.

Enforcement analytical method: (MRID No. 460927-01)

The active ingredient, Bifenthrin and its isomers were determined by reverse phase HPLC/UV detector (254 nm) using external standard quantitation.

Equipment and Parameters

HPLC:	Shimadzu LC-10 AT pump
Detector:	SPD-10A with LC 10 software with UV detector, Wavelength: 254 nm
Integrator:	Digital Electronic Integrator (Model not specified)
Column:	ODS [25cm x 4.6mm (i.d.) x 5um particle size
Column temperature:	25°C
Size of sample:	20µL
Mobile Phase:	acetonitrile/water (75/25)
Flow rate:	2.0 ml / min.
Duration of time:	Not given
Retention time:	cis-Bifenthrin: 8.9 min and trans-Bifenthrin: 6.2 min

Inert ingredient information may be entitled to confidential treatment

6

CONFIDENTIAL APPENDIX

EP [x] MP [] PRODUCT CHEMISTRY REVIEW

BARCODE No.: D295141 REG./File Symbol No.: 70506-LT

PRODUCT NAME: Bifenthrin EC Agricultural Insecticide

Reviewer: BKitchens Company: United Phosphorus, Inc.

1. The inert ingredient, [REDACTED] is not cleared for use in formulated pesticide products. Inform the registrant that the following information must be submitted by the supplier to the Agency:

- ▶ Composition with chemical names
- ▶ CAS Reg. No.
- ▶ % of ingredients, if mixture

1990 OLD BRIDGE ROAD, SUITE 201
LAKE RIDGE, VIRGINIA 22192-2383

DIRECT: 703-492-7905
MAIN: 703-492-0445
Fax: 703-492-0668

E-MAIL: brown@chemreg.com
WEB SITES: www.chemreg.com
www.pesticide.net

ELIZABETH A. BROWN, PH.D.

January 29, 2004

Document Processing Desk
U.S. Environmental Protection Agency (7505C)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202-4501

Attn: George LaRocca (PM 13)

Re: Bifenthrin EC Agricultural Insecticide EPA File Symbol 70506-LT
Bifenthrin EC-CA Agricultural Insecticide EPA File Symbol 70506-LI
Response to Agency Letter of January 6, 2004

Dear George:

On behalf of our client, United Phosphorus, Inc., and in response to the Agency letter of January 6, 2004, enclosed please find the following items which will fulfill the deficiencies:

Product Chemistry:

1. Attached to this letter are the full details of the inert ingredient, including that the inert ingredient is exempted under 40 CFR 180.1001 (c) as [REDACTED]
2. United Phosphorus agrees to provide the final report to fulfill product chemistry guidelines 830.6317 and 830.6320, when the ongoing study is completed. We request that the Agency conditionally register the above products, pending completion and submission of the data.

Acute toxicity: As requested, enclosed is a study to address primary eye irritation (Guideline 870.2400). In its January 6, 2004 letter, the Agency confirmed that the above products may be considered as substantially similar to the cited product by all other routes of exposure. Please note that code numbers UPI EXP 2004-04 and DXP-B-2213-A are experimental code numbers for Bifenthrin EC Agricultural Insecticide and Bifenthrin EC-CA Agricultural Insecticide.

CONSULTANTS TO SUCCESSSM

Over One Hundred and Fifty Years of Combined Experience Assisting Chemical, Pesticide, Bio-Chemical and Life Science Companies on a Wide Range of Issues, Including Regulatory Strategies, Registration, Data Support and Compensation, Quality Assurance, Study Design and Scientific Matters. **276**

ChemReg

INTERNATIONAL, LLC

Letter to G. LaRocca, January 29, 2004, page 2

Based on the results of the enclosed eye irritation study, revised precautionary wording is appropriate. Enclosed please find revised draft labeling (5 copies plus one redline copy to highlight the changes) to address those revisions for both 70506-LT and 70506-LI, as well as to add uses on grapes to 70506-LT. The uses on grapes are the same as on the cited label (279-3069). The previously submitted data matrix forms and certifications with respect to citation of data are appropriate for these changes and do not need to be revised.

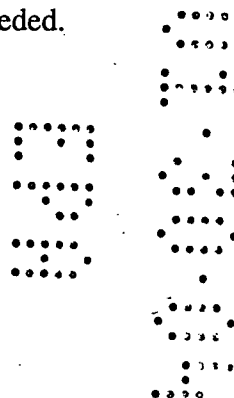
Please let me know if you have any questions or if anything else is needed.

Regards,

Elizabeth Anne Brown

Elizabeth Anne Brown

cc: United Phosphorus, Inc.



TRANSMITTAL DOCUMENT

Submitter

United Phosphorus, Inc
423 Riverview Plaza
Trenton, NJ 08611

Regulatory action in support of which this package is submitted

New Product Registration ("Me-Too")
(Bifenthrin EC Agricultural Insecticide; EPA File Symbol 70506-LT)
(Bifenthrin EC-CA Agricultural Insecticide; EPA File Symbol 70506-LI)

Transmittal Date

January 29, 2004

Submitted Studies

	MRID	
----		Administrative Materials
Document 1:	46183601	Merkel, D. 2004. UPI EXP 2003-04. Primary eye irritation study in rabbits. PSL Study No. 14814. 18 pages.

Company Official

Elizabeth Anne Brown

Company Name:

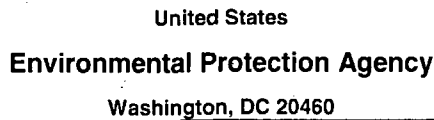
ChemReg International, LLC., Authorized Representative for UPI

Company Contact:

Elizabeth Anne Brown

Phone Number:

703-492-7905

☒ Other

OPP Identifier Number

1. Company/Product Number 70506-LT; 70506-LI	2. EPA Product Manager LaRocca	3. Proposed Classification
4. Company/Product (Name) Bifenthrin EC Agricultural Insecticide Bifenthrin EC-CA Agricultural Insecticide	PM # 13	<input type="checkbox"/> None <input checked="" type="checkbox"/> Restricted
5. Name and Address of Applicant (Include ZIP Code) United Phosphorus, Inc. 423 Riverview Plaza Trenton, NJ 08611 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg No. 279-3069; 279-3114 Product Name Capture EC Insecticide/Miticide; Capture EC-CAL Insecticide/Miticide	

<input type="checkbox"/> Amendment – Explain below	<input type="checkbox"/> Final printed labels in response to Agency letter dated
<input checked="" type="checkbox"/> Resubmission in response to Agency letter dated <u>1/6/2004</u>	<input type="checkbox"/> "Me Too" Application
<input type="checkbox"/> Notification – Explain below	<input type="checkbox"/> Other – Explain below


Section III

1. Material This Product Will be Packaged in:										
Child-Resistant Packaging		Unit Packaging		Water Soluble Packaging				2. Type of Container		
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic	<input type="checkbox"/> Glass	<input type="checkbox"/> Paper	
*Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container	<input type="checkbox"/> Other (Specify) _____				
3. Location of Net Contents Information			4. Size(s) Retail Container			5. Location of label directions				
<input checked="" type="checkbox"/> Label	<input type="checkbox"/> Container		1qt, 3 qt, 1 gal			<input checked="" type="checkbox"/> On Label!	<input checked="" type="checkbox"/> On Label accompanying product			
6. Manner in Which Label is Affixed to Product			<input checked="" type="checkbox"/> Lithograph	<input type="checkbox"/> Other _____						
			<input type="checkbox"/> Paper glued							
			<input type="checkbox"/> Stenciled							

1. Contact Person (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)

Name Elizabeth Anne Brown	Title ChemReg International, LLC Authorized Agent	Telephone No. (Include Area Code) 703-492-7905
------------------------------	---	---

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law

2. Signature 	3. Title ChemReg International, LLC Authorized Agent
4. Typed Name Elizabeth Anne Brown	5. Date 1/29/2004

• • • • •
• • •
• (Stamped)

1990 OLD BRIDGE ROAD, SUITE 201
LAKE RIDGE, VIRGINIA 22192-2383

DIRECT: 703-492-7905
MAIN: 703-492-0445
Fax: 703-492-0668

E-MAIL: brown@chemreg.com
WEB SITES: www.chemreg.com
www.pesticide.net

ELIZABETH A. BROWN, PH.D.

January 29, 2004

Document Processing Desk
U.S. Environmental Protection Agency (7505C)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202-4501

Attn: George LaRocca (PM 13)

Re: Bifenthrin EC Agricultural Insecticide EPA File Symbol 70506-LT
Bifenthrin EC-CA Agricultural Insecticide EPA File Symbol 70506-LI
Response to Agency Letter of January 6, 2004

Dear George:

On behalf of our client, United Phosphorus, Inc., and in response to the Agency letter of January 6, 2004, enclosed please find the following items which will fulfill the deficiencies:

Product Chemistry:

1. Attached to this letter are the full details of the inert ingredient, including that the inert ingredient is exempted under 40 CFR 180.1001 (c) as [REDACTED]
2. United Phosphorus agrees to provide the final report to fulfill product chemistry guidelines 830.6317 and 830.6320, when the ongoing study is completed. We request that the Agency conditionally register the above products, pending completion and submission of the data.

Acute toxicity: As requested, enclosed is a study to address primary eye irritation (Guideline 870.2400). In its January 6, 2004 letter, the Agency confirmed that the above products may be considered as substantially similar to the cited product by all other routes of exposure. Please note that code numbers UPI EXP 2004-04 and DXP-B-2213-A are experimental code numbers for Bifenthrin EC Agricultural Insecticide and Bifenthrin EC-CA Agricultural Insecticide.

CONSULTANTS TO SUCCESSSM

Over One Hundred and Fifty Years of Combined Experience Assisting Chemical, Pesticide, Bio-Chemical and Life Science Companies on a Wide Range of Issues, Including Regulatory Strategies, Registration, Data Support and Compensation, Quality Assurance, Study Design and Scientific Matters.

ChemReg

INTERNATIONAL, LLC

Letter to G. LaRocca, January 29, 2004, page 2

Based on the results of the enclosed eye irritation study, revised precautionary wording is appropriate. Enclosed please find revised draft labeling (5 copies plus one redline copy to highlight the changes) to address those revisions for both 70506-LT and 70506-LI, as well as to add uses on grapes to 70506-LT. The uses on grapes are the same as on the cited label (279-3069). The previously submitted data matrix forms and certifications with respect to citation of data are appropriate for these changes and do not need to be revised.

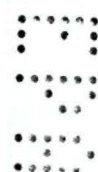
Please let me know if you have any questions or if anything else is needed.

Regards,

Elizabeth Anne Brown

Elizabeth Anne Brown

cc: United Phosphorus, Inc.



TRANSMITTAL DOCUMENT

Submitter

United Phosphorus, Inc
423 Riverview Plaza
Trenton, NJ 08611

Regulatory action in support of which this package is submitted

New Product Registration ("Me-Too")
(Bifenthrin EC Agricultural Insecticide; EPA File Symbol 70506-LT)
(Bifenthrin EC-CA Agricultural Insecticide, EPA File Symbol 70506-LI)

Transmittal Date

January 29, 2004

Submitted Studies

	MRID	
----		Administrative Materials
Document 1:	46183601	Merkel, D. 2004. UPI EXP 2003-04. Primary eye irritation study in rabbits. PSL Study No. 14814. 18 pages.

Company Official

Elizabeth Anne Brown

Company Name:

ChemReg International, LLC., Authorized Representative for UPI

Company Contact:

Elizabeth Anne Brown

Phone Number:

703-492-7905



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

JAN 6 2004

United Phosphorus, Inc.
c/o Ms. Elizabeth A. Brown, Ph.D.
ChemReg International, LLC
1990 Old Bridge Road, Suite 201
Lake Ridge, VA 22192-2383

SUBJECT: Applications for Registration:
I. Bifenthrin EC Agricultural Insecticide
EPA File Symbol: 70506-LT; and
II. Bifenthrin EC-CA Agricultural Insecticide
EPA File Symbol: 70506-LI
Your Submissions Dated October 6, 2003

Dear Ms. Brown:

EPA has completed its review of product chemistry data submitted in support of these applications for registration. A copy of the review, dated December 15, 2003 is enclosed for your records. The following product chemistry deficiencies have been identified:

1. One of the inert ingredients in the products has not been cleared for use in pesticides. Please contact your supplier and have them submit the chemical names, CAS numbers and percentages of all the components of [REDACTED]. Also, please ask the supplier to reference your file symbols (70506-LT and 70506-LI) in their submission.
2. You must submit data to satisfy product chemistry guidelines 830-6317 (storage stability) and 830-6320 (corrosion characteristics). Provided the other deficiencies associated with the application are resolved, EPA may conditionally register the subject products pending completion of these studies.

We have also compared these products to the cited product (Capture 2EC Insecticide/Miticide; EPA Reg. No. 279-3069) and determined that they may be considered substantially similar with respect to acute toxicity by all routes of exposure except the ocular route. Because of differences in inert ingredients, we are concerned that the subject products may have the potential for increased eye irritation. Therefore, you must submit a primary eye irritation study (Guideline 870.2400) to support registration of these products. A copy of the similarity review, dated December 18, 2003 is enclosed for your records.

Finally, EPA is in the process of evaluating the label amendment you submitted to add food uses to the label of Bifenthrin Technical Insecticide/Miticide (EPA Reg. No. 70506-18). We will evaluate the subject products' labeling once we complete our review of the technical label and you have adequately addressed the deficiencies noted above.

If you have any questions regarding this action, please contact Susan Stanton of my team at (703) 305-5218.

Sincerely yours,



George T. LaRocca
Product Manager (13)
Insecticide Branch
Registration Division (7505C)

Enclosures

DATA PACKAGE BEAN SHEET

Date: 22-Oct-2003

Page 1 of 3

160
#15203***** Registration Information *****

Registration: 70506-LT - BIFENTHRIN EC AGRICULTURAL INSECTICIDE

Company: 70506 - UNITED PHOSPHORUS INC

Risk Manager: RM 03 - Marion - Johnson - (703) 305-6788 Room# CM-2 219

Risk Manager Reviewer: Susan Stanton - SSTANTON

Sent Date: 10-Oct-2003

Calculated Due Date: 04-Jan-2004

Edited Due Date: _____

Type of Registration: Product Registration - Section 3Action Desc: NEW REGISTRATION;ME-TOO;Ingredients: 128825***** Data Package Information *****Expedite: ☐ Yes ☒ No

Date Sent: 22-Oct-2003

Due Back: _____

DP Ingredient: 128825, BifenthrinDP Title: Similarity Determination RequestCSF Included: ☒ Yes ☐ NoLabel Included: ☒ Yes ☐ No

Parent DP #: _____

Assigned To**Date In****Date Out**Organization: RD / TRBAdministrative Due Date: 06-Dec-2003Team Name: TOXNegotiated Due Date: 12-15-03

Reviewer Name: _____

Projected Completion Date: _____

Tractor Name: _____

***** Studies Sent for Review *****

Printed on Page 2

***** Additional Data Package for this Decision *****

Printed on Page 3

***** Data Package Instructions *****

Please compare the CSFs and labels for this new product and the cited product (Capture 2EC, 279-3069) and determine whether the products are substantially similar.

no data in OPPIN or G

Thanks,
Susan



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND
TOXIC SUBSTANCES

TECHNICAL REVIEW BRANCH
SIMILARITY CLINIC DETERMINATION

18/DEC/2003

MEMORANDUM

Subject: Name of Pesticide Product: Bifenthrin EC Agricultural Insecticide
EPA Reg. No. /File Symbol: 70506-LT
DP Barcode: D295142
Decision No: 334427
PC Code: 128825

From: Eugenia McAndrew, Biologist *SEN*
Technical Review Branch *SEN*
Registration Division (7505C)

To: Susan Stanton, PM Team 03
Insecticide Branch
Registration Division (7505C)

Applicant: United Phosphorus, Inc.
423 Riverview Plaza
Trenton, NJ 08611

FORMULATION FROM LABEL:

<u>Active Ingredient(s):</u>	<u>% by wt.</u>
128825 Bifenthrin	25.1
<u>Inert Ingredient(s):</u>	<u>74.9</u>
Total:	100.0%

ACTION REQUESTED: "Please compare the CSFs and labels for this new product and the cited product (Capture 2EC, 279-3069) and determine whether the products are substantially similar."

BACKGROUND: United Phosphorus, Inc. has applied for registration of Bifenthrin EC Agricultural Insecticide, EPA File Symbol 70506-LT, claiming similarity to Capture 2EC, EPA Reg. No. 279-3069. Both products contain bifenthrin (label claim of 25.1%) as the active ingredient.

RECOMMENDATIONS: TRB has evaluated the formulations of the proposed product, 279-3069, and the cited product, 70506-LT, and has concluded that the two products are substantially similar. However, the inert ingredients in the proposed product are different from those in the cited product and TRB is concerned about the potential for increased eye irritation. Therefore, a new primary eye irritation study should be submitted for the proposed formulation. TRB recommends that the proposed product use the same precautionary labeling as the cited product.

This memorandum pertains only to the decision concerning whether the subject product is similar to the cited product from an acute toxicological view point. For the purposes of this action, TRB has made no determination of the adequacy of the toxicological data base or the precautionary label of the cited product.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND
TOXIC SUBSTANCES

TECHNICAL REVIEW BRANCH
SIMILARITY CLINIC DETERMINATION

18/DEC/2003

MEMORANDUM

Subject: Name of Pesticide Product: Bifenthrin EC Agricultural Insecticide
EPA Reg. No. /File Symbol: 70506-LT
DP Barcode: D295142
Decision No: 334427
PC Code: 128825

From: Eugenia McAndrew, Biologist
Technical Review Branch
Registration Division (7505C)

To: Susan Stanton, PM Team 03
Insecticide Branch
Registration Division (7505C)

Applicant: United Phosphorus, Inc.
423 Riverview Plaza
Trenton, NJ 08611

FORMULATION FROM LABEL:

<u>Active Ingredient(s):</u>	<u>% by wt.</u>
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<u>Inert Ingredient(s):</u>	<u>74.9</u>
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ACTION REQUESTED: "Please compare the CSFs and labels for this new product and the cited product (Capture 2EC, 279-3069) and determine whether the products are substantially similar."

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This memorandum pertains only to the decision concerning whether the subject product is similar to the cited product from an acute toxicological view point. For the purposes of this action, TRB has made no determination of the adequacy of the toxicological data base or the precautionary label of the cited product.

DATA PACKAGE BEAN SHEET

Date: 22-Oct-2003

Page 1 of 3

160
#15588***** Registration Information *****

Registration: 70506-LT - BIFENTHRIN EC AGRICULTURAL INSECTICIDE

Company: 70506 - UNITED PHOSPHORUS INC

Risk Manager: RM 03 - Marion - Johnson - (703) 305-6788 Room# CM-2 219

Risk Manager Reviewer: Susan Stanton - SSTANTON

Sent Date: 10-Oct-2003

Calculated Due Date: 04-Jan-2004

Edited Due Date: _____

Type of Registration: Product Registration - Section 3

Action Desc: NEW REGISTRATION;ME-TOO;

Ingredients: 128825

***** Data Package Information *****Expedite: ☐ Yes ☒ No

Date Sent: 22-Oct-2003

Due Back: _____

DP Ingredient: 128825, Bifenthrin

DP Title: New Product Review Request

CSF Included: ☒ Yes ☐ NoLabel Included: ☒ Yes ☐ No

Parent DP #: _____

Assigned To**Date In****Date Out**

Organization: RD / TRB

Administrative Due Date: 06-Dec-2003

Team Name: CHEM

Negotiated Due Date: 12-8-04

Reviewer Name: _____

Projected Completion Date: _____

Tractor Name: _____

***** Studies Sent for Review *****

Printed on Page 2

***** Additional Data Package for this Decision *****

Printed on Page 3

***** Data Package Instructions *****

Please review the submitted product chemistry data, CSF and draft label for this new product and determine whether they are acceptable. The company has cited 279-3069 as being substantially similar. Since they have submitted a complete product chemistry package (i.e., they aren't citing any product chemistry data), we do not need to know whether the two products are substantially similar from a chemistry perspective. We have asked TRB/TOX to determine whether they are substantially similar from a toxicology perspective, since they are citing tox studies for FMC's product.

Thanks
Susan Stanton

DATE OUT: 15 Dec 2003

SUBJECT: EP [x] MP [] PRODUCT CHEMISTRY REVIEW
DP BARCODE No.: D295141
REG./File Symbol No.: 70506-LT
PRODUCT NAME: Bifenthrin EC Agricultural Insecticide
COMPANY: United Phosphorus, Inc.
FOOD USE: [X] PC CODE: 128825
Decision No. 334427 Integrated Formulation []

TO: PM #03, Marion Johnson/Susan Stanton
Insecticide Branch
Registration Division (7505C)

FROM: Bruce F. Kitchens, Chemist
Technical Review Branch
Registration Division (7505C)

Bruce F. Kitchens
15 Dec 2003 *SBW 12/16/03*

INTRODUCTION:

The registrant, United Phosphorus, Incorporated, is submitting an application for the new end-use product, Bifenthrin EC Agricultural Insecticide. The active ingredient in this product is Bifenthrin (99.4% ai) at a label nominal concentration of 25.1%. This product is intended for use as an insecticide. In support of this request, the registrant has submitted a basic Confidential Statement of Formula (CSF) dated 19 Sept 2003, a draft label, and product chemistry data contained in MRID#s 460927-01 and -02. The Technical Review Branch (TRB) has been asked to review this submission.

SUMMARY OF FINDINGS:

TRB has reviewed this submission and reports the following findings:

1. This product is produced from a registered source of the active ingredient.
2. One inert ingredient is not cleared for use in formulated pesticide products. This inert ingredients is not exempt from the requirement of a food tolerance. The remaining inert ingredients are cleared for use in formulated pesticide products. In addition, these inert ingredients are exempt from the requirement of a food tolerance. See the confidential appendix for details.

3. The nominal concentration of the active ingredient listed on the proposed basic CSF and the draft label are the same.
4. The draft label contains the appropriate storage and disposal statements. In addition, the label contains the appropriate physical and chemical hazard statements.
5. The active ingredients certified limits as proposed on the basic CSF are acceptable.

CONCLUSIONS:

TRB has reviewed this submission and concludes the following:

1. The basic formula CSF for the proposed end-use product, Bifenthrin EC Agricultural Insecticide dated 19 Sept 2003 is not acceptable because the proposed formulation contains an inert ingredient which is not cleared for use in formulated pesticide products. See the confidential appendix for details.
2. The data requirements for product identity and composition (40 CFR 158.155) and description of materials used to produce the product (40 CFR 158.160) are not satisfied because the proposed product contains an inert ingredient which is not cleared for use in formulated pesticide products.

The remaining data requirements specified in 40 CFR 158.165, 158.167, 158.175, and 158.180 with respect to the description of formulation process, discussion of formation of impurities, certified limits, and enforcement analytical method are satisfied.

3. This submission meets the data requirements as specified in 40 CFR 158.190 with respect to physical and chemical properties. The data requirements for storage stability and corrosion characteristics are not satisfied. The registrant indicated that 1-year studies are in progress and will be submitted to the Agency upon completion.

PRODUCT CHEMISTRY DATA (GROUP A)

<u>Chemical IDs/Manufacture/ Analytical Information</u>	<u>Data Required Fulfilled</u>	<u>MRID No.</u>
830-1550 Product Identity and Composition	N	
830-1600 Description of Materials Used to Produce the Product	N	
830-1620 Description of Production Process	NR	
830-1650 Description of Formulation Process	Y	460927-01
830-1670 Discussion of Impurities	Y	460927-01
830-1700 Preliminary Analysis	NR	
830-1750 Certified Limits	Y	460927-01
830-1800 Enforcement Analytical Method	Y	460927-01

PRODUCT CHEMISTRY DATA (GROUP B)

<u>24. Physical/Chemical Properties</u>	<u>Data Required Fulfilled</u>	<u>Value or Qualitative Description</u>	<u>MRID No.</u>
830-6302 Color	Y	Yellow	460927-02
830-6303 Physical State	Y	Liquid	460927-02
830-6304 Odor	Y	Aromatic solvent	460927-02
830-6314 Oxidation/Reduction:Chemical Incompatability	NA	Product does not contain oxidizing or reducing agents	
830-6315 Flammability/Flame Extension	Y	129°F	460927-02
830-6316 Explodability	NA	Product does not contain explosive components	
830-6317 Storage Stability of Product	I	One year study in progress	
830-6319 Miscibility	NA	Product not mixed with petroleum solvents	
830-6320 Corrosion Characteristics	I	One year study in progress	
830-6321 Dielectric Breakdown Constant	NA	Product not used around electrical equipment	
830-7000 pH	Y	4.56 (1% w/w in water)	460927-02
830-7100 Viscosity	Y	6.308 centistokes @ 20°C; 3.69 centistokes @ 40°C	460927-02
830-7300 Density	Y	0.958 g/ml (7.995 lb/gal)	460927-02

Explanations: Y = The Requirements Were Fulfilled; N = The Requirements Were Not Fulfilled; NA = Not Applicable; G = Data Gap; U = Requires Upgrading; I = Incomplete or In Progress; W = Waived.

Enforcement analytical method: (MRID No. 460927-01)

The active ingredient, Bifenthrin and its isomers were determined by reverse phase HPLC/UV detector (254 nm) using external standard quantitation.

Equipment and Parameters

HPLC:	Shimadzu LC-10 AT pump
Detector:	SPD-10A with LC 10 software with UV detector, Wavelength: 254 nm
Integrator:	Digital Electronic Integrator (Model not specified)
Column:	ODS [25cm x 4.6mm (i.d.) x 5um particle size
Column temperature:	25°C
Size of sample:	20µL
Mobile Phase:	acetonitrile/water (75/25)
Flow rate:	2.0 ml / min.
Duration of time:	Not given
Retention time:	cis-Bifenthrin: 8.9 min and trans-Bifenthrin: 6.2 min

CONFIDENTIAL APPENDIX

EP [x] MP [] PRODUCT CHEMISTRY REVIEW

BARCODE No.: D295141 REG./File Symbol No.: 70506-LT

PRODUCT NAME: Bifenthrin EC Agricultural Insecticide

Reviewer: BKitchens Company: United Phosphorus, Inc.

1. The inert ingredient, [REDACTED] is not cleared for use in formulated pesticide products. Inform the registrant that the following information must be submitted by the supplier to the Agency:

- ▶ Composition with chemical names
- ▶ CAS Reg. No.
- ▶ % of ingredients, if mixture

Inert ingredient information may be entitled to confidential treatment



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

October 16, 2003

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

UNITED PHOSPHORUS INC
423 RIVERVIEW PLAZA
TRENTON, NJ 08611

Report of Analysis for Compliance with PR Notice 86-5

Thank you for your submittal of 06-OCT-03. Our staff has completed a preliminary analysis of the material. The results are provided as follows:

Your submittal was found to be in full compliance with the standards for submission of data contained in PR Notice 86-5. A copy of your bibliography is enclosed, annotated with Master Record ID's (MRIDs) assigned to each document submitted. Please use these numbers in all future references to these documents. Thank you for your cooperation. If you have any questions concerning this data submission, please raise them with the cognizant Product Manager, to whom the data have been released.

1990 OLD BRIDGE ROAD, SUITE 201
LAKE RIDGE, VIRGINIA 22192-2383

DIRECT: 703-492-7905
MAIN: 703-492-0445
Fax: 703-492-0668

E-MAIL: brown@chemreg.com
WEB SITES: www.chemreg.com
www.pesticide.net

ELIZABETH A. BROWN, PH.D.

October 6, 2003

Document Processing Desk (APPL)
U.S. Environmental Protection Agency (7505C)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202-4501

Attn: George LaRocca (PM 13)

Re: Application for Registration of "Me-Too" Bifenthrin EC Agricultural Insecticide

On behalf of our client, United Phosphorus, Inc. (UPI), we are submitting an application for a "me-too" registration of Bifenthrin EC Agricultural Insecticide Insecticide (EPA Product Code 128825). This product is substantially similar in composition and labeling to the already registered EPA Reg No. 279-3069 (based on most recent label approval of 5/7/2003).

Enclosed with this letter, please find the following items:

1. Application Form (EPA Form 8570-1)
2. Confidential Statement of Formula (EPA Form 8570-4)
3. Data matrix forms, Agency Use and Public File copies (EPA Form 8570-35)
4. Certification with Respect to Citation of Data (EPA Form 8570-34)
5. Five (5) copies of the proposed labeling
6. Transmittal document
7. Three (3) copies of each submitted study.

Please note that we are relying upon the selective cite-all method to satisfy data requirements that have not been satisfied by data submitted by UPI. Data submitted for this application also fulfills requirements for a concurrent application for Bifenthrin EC-CA Agricultural Insecticide; the two products are identical in composition but the uses are limited on the EC-CA in comparison to this application.

CONSULTANTS TO SUCCESSSM

Over One Hundred and Fifty Years of Combined Experience Assisting Chemical, Pesticide, Bio-Chemical and Life Science Companies on a Wide Range of Issues, Including Regulatory Strategies, Registration, Data Support and Compensation, Quality Assurance, Study Design and Scientific Matters.

Letter to G. Larocca, October 6, 2003, page 2

Please let me know if you have any questions about this application or if any additional information is needed.

Sincerely,

Elizabeth Anne Brown

Elizabeth Anne Brown, Ph.D.

cc: United Phosphorus, Inc.

TRANSMITTAL DOCUMENT

Submitter

United Phosphorus, Inc
423 Riverview Plaza
Trenton, NJ 08611

Regulatory action in support of which this package is submitted

New Product Registration ("Me-Too")
(Bifenthrin EC Agricultural Insecticide)
(Bifenthrin EC-CA Agricultural Insecticide)

Transmittal Date

October 6, 2003

Submitted Studies

	MRID	
----		Administrative Materials
Document 1:	46092701	Tillman, A. Sept. 19, 2003. Bifenthrin EC Agricultural Insecticide, Bifenthrin EC-CA Agricultural Insecticide. Product Identity, Composition and Analysis (Group A). United Phosphorus, Inc. Report No. UPI-Bifen EC - 2003-10. 44 pages. Contains Confidential Business Information.
Document 2	46092702	Tillman, A. Sept. 19, 2003. Bifenthrin EC Agricultural Insecticide, Bifenthrin EC-CA Agricultural Insecticide. Self-certification of physical/chemical properties. United Phosphorus Inc. Report No. UPI-Bifen EC 2003-11. 5 pages.

Company Official

Elizabeth Anne Brown

Company Name:

ChemReg International, LLC., Authorized Representative for UPI

Company Contact:

Elizabeth Anne Brown

Phone Number:

703-492-7905



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
401 M STREET, S.W.
WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 1.25 hours per response for registration and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, DC 20460.

Do not send the completed form to this address.

Certification with Respect to Citation of Data

Applicant's/Registrant's Name, Address, and Telephone Number

United Phosphorus, Inc.
 423 Riverview Plaza
 Trenton, NJ 08611
 609-392-8200

EPA Registration Number/File Symbol
 70506-

Active Ingredient(s) and/or representative test compound(s)
 Bifenthrin

Date
 10/3/2003

General Use Pattern(s) (list all those claimed for this product using 40 CFR Part 158)
 Terrestrial food

Product Name
 Bifenthrin EC Agricultural Insecticide

NOTE: If your product is a 100% repackaging of another purchased EPA-registered product labeled for all the same uses on your label, you do not need to submit this form. You must submit the Formulators Exemption Statement (EPA Form 8570-27)

☐ I am responding to a Data-Call-In Notice, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).

SECTION I: METHOD OF DATA SUPPORT (Check one method only)

☐ I am using the cite-all method of support, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose)

☒ I am using the selective method of support (or cite-all option under the selective method), and have included with this form a completed list of data requirements (the Data Matrix form must be used).

SECTION II: GENERAL OFFER TO PAY

[Required if using the cite-all method, or when using the cite-all option under the selective method to satisfy one or more data requirements]

☒ I hereby offer and agree to pay compensation, to other persons, with regard to the approval of this application, to the extent required by FIFRA

SECTION III: CERTIFICATION

I certify that this application for registration, this form for reregistration or this Data-Call-In response is supported by all data submitted or cited in application for registration, the form for reregistration, or the Data-Call-In response. In addition, if the cite-all option or cite-all option under the selective method is indicated in Section 1, this application is supported by all data in the Agency's files that (1) concern the properties or effects of this product or an identical or substantially similar product, or one or more of the ingredients in this product; and (2) is a type of data that would be required to be submitted under the data requirements in effect on the date of approval of this application if the application sought the initial registration of a product of identical or similar composition and uses.

I certify that for each exclusive use study cited in support of this registration or reregistration, that I am the original data submitter or that I have obtained the written permission of the original data submitted to cite that study.

I certify that for each study cited in support of this registration or reregistration that is not an exclusive use study, either: (a) I am the original data submitter; (b) I have obtained the permission of the original data submitter to use the study in support of this application; (c) all periods of eligibility for compensation have expired for the study; (d) the study is in the public literature; or (e) I have notified in writing the company that submitted the study and have offered (i) to pay compensation to the extent required by sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA; and (ii) to commence negotiations to determine the amount and terms of compensation, if any, to be paid for the use of the study.

I certify that in all instances where an offer of compensation is required, copies of all offers to pay compensation and evidence of their delivery in accordance with sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA are available and will be submitted to the Agency upon request. Should I fail to produce such evidence to the Agency upon request, I understand that the Agency may initiate action to deny, cancel or suspend the registration of my product in conformity with FIFRA.

I certify that the statements I have made on this form and all attachments to it are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment of both under applicable law.

Signature

Ann M. Tillman

Date
 10/3/2003

Typed or Printed Name and Title
 Ann M. Tillman, Ph.D.
 Technical Director

RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.

For retail sale to and use only by certified applicators, or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

BIFENTHRIN EC AGRICULTURAL INSECTICIDE**BIFENTHRIN EC AGRICULTURAL INSECTICIDE IS NOT FOR SALE OR USE IN CALIFORNIA.****Active Ingredient:****Bifenthrin*** (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate 25.1% ✓**Inert Ingredients**:** 74.9%**TOTAL** 100.0%

*Cis isomers 97% minimum, trans isomers 3% maximum.

**Contain xylene range aromatic solvents

This product contains 2 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN**WARNING****AVISO**

This label must be in the possession of the user at the time of application.

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID

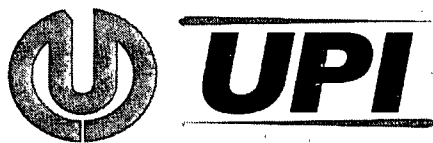
If swallowed	<ul style="list-style-type: none">• Call poison control center or doctor immediately for treatment advice.• Do not induce vomiting unless told to do so by the poison control center or doctor.• Do not give any liquid to the person.• Do not give anything by mouth to an unconscious person.
If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.• Call a poison control center or doctor for further treatment advice.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN

This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided. Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE, CALL THE NATIONAL PESTICIDE INFORMATION CENTER 1-800-858-7378.

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident,
call CHEMTREC 1-800-424-9300.**



Manufactured for:
United Phosphorus, Inc.
423 Riverview Plaza • Trenton, NJ 08611
1-800-247-1557 • www.upi-usa.com

EPA Reg. No. 70506-
EPA Est. No.
Net Contents:

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Warning

May be fatal if swallowed. Harmful if inhaled, or absorbed through skin. Causes moderate eye irritation. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes, or clothing.

Personal Protective Equipment:

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions or category E on an EPA chemical resistance category selection chart.

Handlers who may be exposed to the dilute through application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, or Nitrile rubber or neoprene rubber or Viton.
- Shoes plus socks

Handlers who may be exposed to the concentrate through mixing, loading, application or other tasks must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber, or Viton.
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

Physical/Chemical Hazards

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Resistance: Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities for details.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control in your area.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Chemical-resistant gloves, such as Barrier Laminate or Nitrile Rubber or Neoprene Rubber or Viton.
- Shoes plus socks.

STORAGE AND DISPOSAL

Pesticide Storage: Do not freeze. Do not store below 40°F. If crystals are observed, warm material to above 60°F by placing in warm location. Shake or roll container periodically to redissolve solids.

Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

To Confine Spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Disposal: Metal or Plastic Container: Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Returnable, Refillable Containers: Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

Chemigation Use Directions

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

For LEPA irrigation a minimum of 0.75 inch of water per acre is recommended. Where non-emulsified oils are used as the diluent, 1 to 2 pints per acre is recommended.

Results from utilizing chemigation have been variable and depend upon the set up and calibration of equipment. Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. Contact your State Agricultural Extension Service specialists, equipment manufacturers or other experts for consultation on the suitability of the equipment set up to obtain effective control of the target insect pests.

A person knowledgeable of the chemigation system and responsible for its operations, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent areas.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Bifenthrin EC Agricultural Insecticide should be applied continuously for the duration of the water application. Bifenthrin EC Agricultural Insecticide should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation, a minimum of 0.5 inch per acre of irrigation water is recommended. Agitation generally is not required when a suitable diluent is used. A diluent test should be conducted to ensure that phase separation will not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control.

Rotational Crops

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days following the final application of bifenthrin.

Tank-Mixture

Bifenthrin EC Agricultural Insecticide may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products. Test for compatibility of products before mixing.

Application Instructions

Rate of application is variable according to pest pressure, timing of sprays, and field scouting. Use lower rates under light to moderate infestations; higher rates under heavy insect pressure and for mite control. Arid climates generally require higher rates.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip.

In New York State this product may not be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

Spray Drift Precautions

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

OBSERVE THE FOLLOWING PRECAUTIONS WHEN SPRAYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES, RESERVOIRS, RIVERS, PERMANENT STREAMS, MARSHES OR NATURAL PONDS; ESTUARIES AND COMMERCIAL FISH FARM PONDS.

Do not apply by ground equipment within 25 feet, or by air within 150 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds. Increase the buffer zone to 450 feet when ultra low volume (ULV) application is made in cotton. Use of ultra low volume (ULV) application on corn is prohibited.

For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.

Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.

Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

Make aerial or ground applications when the wind velocity favors on target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.

Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Do not cultivate within 10 feet of the aquatic areas so as to allow growth of a vegetative filter strip.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.

Do not make aerial or ground applications during temperature inversions. Do not make aerial or ground applications to corn if heavy rainfall is imminent. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

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ARTICHOKE

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Cribrate Weevil Artichoke Plume Moth	0.10	6.4	<p>Apply when pest population reaches damaging threshold and repeat as necessary to maintain control, but not more often than 15 day intervals.</p> <p>Application by ground: Apply a full cover spray in a minimum of 75 gallons of finished spray per acre.</p> <p>Application by air: Apply specified dosage in a minimum of 10 gallons per acre.</p> <p>Do not exceed 0.5 lb. AI/A per season.</p> <p>A 5-day preharvest interval must be observed.</p>

BRASSICAS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Head and Stem	Cutworms	0.033-0.10	2.1-6.4	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.
Brassica	Corn Earworm			
Vegetables	Tobacco			
including:	Budworm			
Broccoli	Saltmarsh			Do not apply more than 0.5 lb active ingredient (1 quart) per acre per season.
Chinese Broccoli	Caterpillar			
(gai lon, white	Leafhoppers			
flowering	Flea Beetles			
broccoli)	Imported			Do not make more than 5 applications after bloom.
Brussels Sprouts	Cabbageworm			
Cauliflower	Cucumber			
Cavalo Broccolo	Beetles			
Kohlrabi	Aphids			Do not make applications less than 7 days apart.
Cabbage	Whitefly			
Chinese Cabbage	Armyworms			
(napa)	Loopers			
Chinese Mustard	Stink Bugs			Do not apply within 7 days of harvest.
Cabbage (gai	Crickets			
choy)	Ground Beetles			
	Thrips			
	Wireworm			
	(Adults)			
	Diamondback			
	Moth			
	Banks Grass	0.08-0.10	5.12-6.4	
	Mite			
	Twospotted			
	Spider Mite			
	Pacific Spider			
	Mite			
	Carmine Mite			
	Lygus spp.			

CANEberries

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Caneberries including: Blackberries Bingleberries Dewberries Lowberries Marionberries Olallieberries Youngberries Loganberries Raspberries	Leafrollers Orange Tortrix Root Weevils	0.05-0.10	3.2-6.4	Apply by air or ground equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons per acre by air and 50 gallons per acre by ground). One application may be made pre-bloom and a second application may be made post bloom. Do not exceed 0.2 lb. AI/A per season. Do not apply within 3 days of harvest.
	Spider Mites	0.10	6.4	

CANOLA, CRAMBE, RAPESEED

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Cutworms Diamondback Moth Loopers Other Lepidopterous Larvae Flea Beetle Flea Hopper Grasshopper Plant Bug Stink Bugs Seedpod Weevil Thrips Whitefly Armyworms	0.033-0.04	2.1-2.6	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not apply more than 0.08 lb active ingredient (5.12 ounces formulated product) per acre per season. Do not make applications less than 14 days apart. Do not apply within 35 days of harvest.

CITRUS

PEST	DOSAGE	REMARKS AND RESTRICTIONS
<p><i>Diaprepes</i> Root Weevil (<i>Diaprepes abbreviatus</i>)</p> <p>Fire Ants</p> <p>Asian Cockroach</p>	16-32 ounces (0.25-0.50 pound active) per acre	<p>Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer.</p> <p>Peak emergence of <i>Diaprepes</i> root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of <i>Diaprepes</i> root weevil may also occur in the fall.</p> <p>If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 32 fluid ounces formulated product should be used to obtain the longest residual management of <i>Diaprepes</i> root weevil.</p> <p>If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 16 fluid ounces formulated product can be applied early season and 16 fluid ounces formulated product can be applied later in the season.</p> <p>If emergence extends beyond the residual protection of Bifenthrin EC, grower is advised to use additional management strategies (i.e. foliar adult control or soil larvae control such as nematodes). Contact your state agricultural Extension Specialist as to the recommendation suited for local conditions.</p> <p>Do not apply through irrigation systems.</p> <p>Do not allow any application of Bifenthrin EC to contact fruit or foliage.</p> <p>Do not apply more than a total of 32 fluid ounces of formulated product (0.5 lb. a.i.) per acre per year.</p> <p>Apply the specified dosage in a minimum of 30 gallons of finished spray per acre.</p> <p>Ground application only. Do not apply by air.</p> <p>Do not apply within 1 day of harvest.</p>

COTTON

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	0.02-0.10	1.3-6.4	<p>Bifenthrin EC may be applied in water or refined vegetable oil (soybean/cottonseed).</p> <p>Application in Water: Apply in a minimum of 5 gallons per acre with ground equipment or 1 gallon per acre by aircraft. When applying by air, 1 quart of emulsified oil may be substituted for one quart of water in the finished spray.</p>
Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper, Stink Bugs Tobacco Budworm Whitefly Yellow Striped Armyworm	0.04-0.10	2.6-6.4	<p>ULV Application: Apply the recommended rate of Bifenthrin EC in refined vegetable oil in a minimum of 1 quart of finished spray per acre with aircraft calibrated to give adequate coverage.</p> <p>To Control Boll Weevil: Apply Bifenthrin EC at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.</p> <p>To Control Mites and Aphids: Apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is established.</p>
Beet Armyworm Carmine Spider Mite Lygus spp. Pink Bollworm Twospotted Spider Mite	0.06-0.10	3.8-6.4	<p>Do not apply more than 0.5 pound active ingredient per acre per season.</p> <p>Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season. Synthetic pyrethroid products include Ambush®, Ammo®, Asana® XL, Baythroid®, Capture®, Danitol®, Karate®, Mustang®, and Scout X-TRA®.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed.</p> <p>Do not apply within 14 days of harvest.</p>

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(AT PLANT USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS			
Corn Rootworm, Larvae Northern Southern Western	0.0046 lb AI per 1,000 linear feet of row	0.30 fluid ounces per 1,000 linear feet of row	<p>Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the Bifenthrin EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre.</p> <p>Mix Bifenthrin EC with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Bifenthrin EC then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.</p>			
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 to 0.0046 lb AI per 1,000 linear feet of row	0.15 to 0.30 fluid ounces per 1,000 linear feet of row	<p>Applications of Bifenthrin EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Bifenthrin EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.</p> <p>Do not apply to soil where there is greater than 30% cover of crop residue remaining.</p> <p>Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</p> <p>Do not apply more than 0.1 pound active per acre per season as an at plant application.</p> <p>Do not apply within 30 days of harvest.</p>			
Row Spacings (inches)			40	38	36	30
Bifenthrin EC Agricultural Insecticide (pounds ai per acre)			0.060	0.064	0.069	0.080
Bifenthrin EC Agricultural Insecticide (formulated product, ounces per acre)			3.9	4.1	4.4	5.12

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(PRE & PPI)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
Black Cutworm White Grub Wireworm Seedcorn Maggot Armyworm spp. Stalkborer	0.047 to 0.062 pound AI/A Pre- Plant Incorporated (PPI)	3 to 4 fl. oz./A Pre- Plant Incorporated (PPI)	The 3-4 oz./A rate must be applied as PPI and can be tankmixed and applied with PPI herbicides. Incorporation of Bifenthrin EC should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.
Black Cutworm Armyworm spp. Stalkborer	0.040 LB AI/A Pre- emergence (PRE)	2.56 FL. OZ./A Pre- emergence (PRE)	The 2.56 oz./A rate may be applied PRE and can be tankmixed and applied with PRE herbicides.

**FIELD CORN (GRAIN AND SILAGE), POPCORN, FIELD CORN GROWN FOR SEED
(FOLIAR USE)**

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2-5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment. To improve control by aircraft, use 5 gallons of finished spray per acre particularly when initial populations are heavier than normal. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To Control Ear-Attacking Pests: Apply Bifenthrin EC just before silking and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make application for corn borer control with initial application at or shortly before egg hatch.</p> <p>For Control of Other Insect Pests: Apply when pests first appear and repeat as necessary.</p> <p>For Control of Mites: Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form prior to leaf damage or discoloration and before wide-spread mite dispersal throughout the canopy.</p> <p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 lb active per acre in tank mixture has demonstrated good control under these conditions.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	<p>For Mite Control in Texas, New Mexico, Oklahoma, and Arizona: Apply in a minimum of 5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment.</p> <p>Do not apply more than 0.3 pound active per acre per season including pre & ppi, at plant plus foliar applications.</p> <p>Do not graze livestock in treated areas or cut treated crops for feed within 30 days of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn if heavy rainfall is imminent.</p> <p>Use of Bifenthrin EC Agricultural Insecticide on corn is prohibited in all coastal counties.</p> <p>Do not apply within 30 days of harvest.</p>

SWEET CORN (GRAIN AND SILAGE)
SWEET CORN GROWN FOR SEED
(AT PLANT USE)

PEST	DOSAGE		REMARKS AND RESTRICTIONS			
Corn Rootworm, Larvae Northern Southern Western	0.0046 pound active per 1,000 linear feet of row	0.30 fluid ounces per 1,000 linear feet of row	<p>Apply as a 5 to 7 inch T-band treatment over an open seed furrow. Position the spray nozzle behind the planter shoe, in front of the press wheel centered over the row. Use the table below to determine the Bifenthrin EC needs per acre. Apply in a minimum of 3 gallons of finished spray per acre.</p> <p>Mix Bifenthrin EC with water or fertilizer in the following manner. Fill the spray tank approximately one-half full with water or liquid fertilizer, add the proper amount of Bifenthrin EC then add the rest of the water or fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.</p>			
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 to 0.0046 pound active per 1,000 linear feet of row	0.15 to 0.30 fluid ounces per 1,000 linear feet of row	<p>Applications of Bifenthrin EC alone or in recommended tank mixtures, in conjunction with in furrow pop-up fertilizers may be used. A jar compatibility test should be performed with appropriate ratio of Bifenthrin EC and fertilizer to ensure mixture will stay in solution. Constant agitation should be maintained during mixing and application.</p> <p>Do not apply to soil where there is greater than 30% cover of crop residue remaining.</p> <p>Do not apply within 30 days of harvest.</p> <p>Do not graze livestock in treated area or cut treated crops for feed within 30 days of treatment.</p> <p>Do not apply more than 0.1 pound active per acre per season as an at plant application.</p>			
Row Spacings (inches)			40	38	36	30
Bifenthrin EC (pounds ai per acre)			0.060	0.064	0.069	0.080
Bifenthrin EC (formulated ounces per acre)			3.9	4.1	4.4	5.12

SWEET CORN (GRAIN AND SILAGE)

SWEET CORN GROWN FOR SEED

(FOLIAR USE)

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>To Control Ear-Attacking Pests: Apply Bifenthrin EC when silking begins and repeat as necessary to maintain control.</p> <p>Southwestern Corn Borer, European Corn Borer: Make 2 applications for corn borer control with the initial application at or shortly before egg hatch.</p> <p>For Control of Other Insect Pests: Apply when pests first appear and repeat as necessary.</p> <p>For Control of Mites: Apply for Banks Grass Mites control when colonies first form from prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite Control: Apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	<p>Higher rates will be necessary for heavier initial populations and corn under heat or drought stress.</p> <p>Do not make more than 0.2 pounds active ingredient (12.8 ounces formulated product) per acre per season.</p> <p>Do not graze livestock in treated areas of cut treated crops for feed within 1 day of the last application.</p> <p>Use of ultra low volume (ULV) application on corn is prohibited.</p> <p>Do not make aerial or ground applications to corn of heavy rainfall is imminent.</p> <p>Use of Bifenthrin EC on corn is prohibited in all coastal counties.</p> <p>Do not apply within 1 day of harvest.</p>

CUCURBITS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB A/A	FL OZ/A	
Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Citron melon Cucumber Gherkin Gourd, edible (includes hyloan, cucuzza), (<i>Luffa</i> spp.) (includes hechima, Chinese okra), (<i>Momordica</i> spp.) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber) Muskmelon (hybrids and/or cultivars of <i>Cucumis melo</i>) (includes true cantaloupe, cantaloupe casaba, crenshaw melon, golden, pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon) Pumpkin (<i>Cucurbita</i> spp.) Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini) Squash, winter (includes butternut squash, calabaza, hubbard squash (<i>C. mixta</i> ; <i>C. pepo</i>), includes acorn squash, spaghetti squash) Watermelon, (includes hybrids and or varieties of <i>Citrullis</i> spp.)	Aphids Cutworm Cabbage Looper Leafhoppers Cucumber Beetles Squash Bugs Melonworm Pickleworm Plant Bug Stink Bugs Rindworm Squash Vine Borer Armyworms Corn Earworm Tobacco Budworm Grasshopper	0.04-0.10	2.6-6.4	Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 20 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not apply more than 0.3 lb active ingredient (19.2 ounces formulated product) per acre per season. Do not make more than two applications after bloom. Do not make applications less than 7 days apart. Do not apply within 3 days of harvest.
	Whitefly Banks Grass Mite Twospotted Spider Mite Carmin Mite Lygus spp.	0.08-0.10	5.12-6.4	

EGGPLANT

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Colorado Potato Beetle Corn Earworm European Corn Borer Flea Beetle Cabbage Looper Cucumber Beetle Tomato Pinworm Tomato Hornworm Vegetable Leafminer Whitefly Armyworms Plant Bug Stink Bug Thrips	0.033-0.10	2.1-6.4	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. Do not make applications less than 7 days apart. Do not apply more than 0.2 lb active ingredient (12.8 ounces formulated product) per acre per season. Do not apply within 7 days of harvest.
Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus spp.	0.08-0.10	5.12-6.4	

HOPS

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB AI/A	FL OZ/A	
Aphids Armyworms Cutworms Leafrollers Loopers	0.06-0.1	3.8-6.4	Do not exceed 0.1 lb ai per acre per application . Do not exceed 0.3 lb ai per acre per season . A spray interval of 21 days between applications must be maintained.
Root Weevils	0.05-0.1	3.2-6.4	A 14 day pre-harvest interval must be observed.
Twospotted spider mite	0.1	6.4	Application by ground: For best results, full coverage is essential. Early season recommend 100-150 gallons of spray per acre. Late season recommend 200-250 gallons of spray per acre. For Root Weevil control, make a directed spray to the base of the plant. Spray up the vine 3 feet and the soil surface 1.5 to 2 feet on either side of the plant. Application by air for late season control of twospotted spider mites: Apply no less than 6.4 oz (0.1 lb ai) per application in a minimum of 10 gallons per acre.

LETTUCE, HEAD

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Armyworms Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink Bug spp. Tobacco Budworm Whitefly	0.033-0.10	2.1-6.4	<p>Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment and 5 gallons per acre by air. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.</p> <p>Do not make applications less than 7 days apart.</p> <p>A maximum of 0.5 lb active ingredient may be applied per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>
Lygus, spp. Carmin Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	

PEARS

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Aphids Coddling Moth Cutworms Green Fruitworm Leafhoppers Leafminers Leafrollers Lygus spp. Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs Tarnished Plant Bugs	0.04 to 0.2	2.6 to 12.8	<p>Application by ground: Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray in sufficient water to provide thorough coverage.</p> <p>Application by air: Apply the specified dosage in a minimum of 10 gallons per acre by air.</p> <p>Do not apply more than 0.5 pound active per acre per season with no more than 0.45 pound active per acre applied after petal fall.</p> <p>Apply as necessary to maintain control using a minimum of 30 day spray interval.</p> <p>Do not graze livestock in treated orchards or cut treated cover crops for feed.</p>
Twospotted Spider Mite Yellow Mite	0.06 to 0.2	8.8 to 12.8	Apply up to 14 days prior to harvest.
European Red Mite	0.08 to 0.2	5.12 to 12.8	

PEPPERS, BELL AND NON-BELL

PEST	DOSAGE		REMARKS AND RESTRICTIONS
	LB A/A	FL OZ/A	
Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	0.033-0.1	2.1-6.4	<p>Apply using sufficient water to obtain uniform coverage. Apply as needed. Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft.</p> <p>Do not make applications less than 7 days apart.</p> <p>Do not apply more than 0.20 pound active ingredient per acre per season.</p> <p>Do not apply within 7 days of harvest.</p>
Lygus spp. Broad Mite Carmine Mite Twospotted Spider Mite	0.8-0.10	5.12-6.4	

SPINACH

PESTS	DOSAGE	REMARKS AND RESTRICTIONS
Colorado Potato Beetle Tomato Pinworm Tomato Hornworm Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	2.1 to 6.4 ounces (0.033 to 0.10 pound active) per acre	<p>For control of whiteflies apply foliar treatments of Bifenthrin EC by ground or air at rates of up to 0.4 pt. (0.1 lb active) per acre at minimum 7-day intervals up to a maximum of 4 applications.</p> <p>For control of fire ants apply Bifenthrin EC to the soil (at planting) or as a foliar treatment by ground or air at rates of up to 0.4 pt. (0.1 lb active) per acre at minimum 7-day intervals up to a maximum of 4 applications.</p> <p>Apply the specified dosage in 5-50 gallons of finished spray per acre by air or 10-50 gallons of finished spray per acre by ground.</p> <p>Do not make applications less than 7 days apart.</p>
Broad Mite Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus spp. Fire Ants	5.12 to 6.4 ounces (0.08 to 0.10 pound active) per acre	<p>Do not apply more than 0.4 pounds active ingredient per acre per season.</p> <p>Do not apply within 40 days of harvest.</p>

SUCCULENT PEAS AND BEANS

CROP	PEST	DOSAGE		REMARKS AND RESTRICTIONS
		LB AI/A	FL OZ/A	
Pea (Pisum spp.)	Flea Beetle	0.025-0.10	1.6-6.4	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.
Dwarf pea	Grasshoppers			
Edible-pod pea	Aster			
English pea	Leafhopper			
Garden pea	Leafhoppers	0.033-0.10	2.1-6.4	Do not apply more than 0.2 lb active ingredient (12.8 ounces formulated product) per acre per season. Do not apply within 3 days of harvest
Green pea	Aphids			
Snow pea	Beet Armyworm			
Sugar snap pea	Fall Armyworm			
Pigeon pea	Southern			
Bean (Phaseolus spp.):	Armyworm			
Broadbean	Yellowstriped			
(succulent)	Armyworm			
Lima bean	Bean Leaf			
(green)	Beetle			
Runner bean	Cucumber			
Snap bean	Beetles			
Wax bean	Japanese Beetle			
	(Adult)			
Bean (Vigna spp.):	Sap Beetle			
Asparagus bean	Plant Bug			
Blackeyed pea	Stink Bugs			
Chinese longbean	Tarnished Plant			
Cowpeas	Bug			
Moth bean	Alfalfa			
Southern pea	Caterpillar			
Yardlong bean	Cloverworm			
Jackbean	European Corn			
Soybean	Borer			
(immature seed)	Cutworms			
Sword bean	Western Bean			
	Cutworm			
	Corn Earworm			
	Loopers			
	Corn Rootworm			
	(Adult)			
	Thrips			
	Webworms			
	Pea Weevil			
	Pea Leaf Weevil			
	Whitefly			
	Banks Grass	0.08-0.10	5.12-6.4	
	Mite			
	Twospotted			
	Spider Mite			
	Carmin Mite			
	Lygus spp.			

TOMATOES

PEST	DOSAGE	REMARKS AND RESTRICTIONS
<p>Aphids</p> <p>Armyworms – Including:</p> <p> Beat Armyworm, Fall</p> <p> Armyworm, Southern</p> <p> Yellowstriped Armyworm</p> <p>Bean Leaf Beetle</p> <p>Cabbageworm</p> <p>Carmine Mite</p> <p>Cloverworm</p> <p>Corn Earworm</p> <p>Corn Rootworm</p> <p>Cucumber Beetles</p> <p>Cutworms</p> <p>Diamondback Moth</p> <p>European Corn Borer</p> <p>Flea Beetles</p> <p>Flea Hopper</p> <p>Grasshopper</p> <p>Japanese Beetle (Adult)</p> <p>Leafhoppers</p> <p>Loopers</p> <p>Lygus spp.</p> <p>Melonworm</p> <p>Pea Weevil</p> <p>Pea Leaf Weevil</p> <p>Pickleworm</p> <p>Plant Bug</p> <p>Rindworm</p> <p>Salt Marsh Caterpillar</p> <p>Sap Beetle</p> <p>Seedpod Weevil</p> <p>Squash Bugs</p> <p>Stink Bug spp.</p> <p>Tobacco Budworm</p> <p>Tarnished Plant Bug</p> <p>Thrips</p> <p>Two Spotted Spider Mite</p> <p>Whitefly</p>	<p>2.1-5.2 fluid ounces (0.033-0.08 pound active) per acre</p>	<p>Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment.</p> <p>Thorough coverage is essential to achieve control.</p> <p>Do not make applications less than 10 days apart.</p> <p>A maximum of 4 applications may be applied per season.</p> <p>Do not apply within 1 day of harvest.</p>

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. All such risks shall be assumed by Buyer and User; and Buyer and User agree to hold United Phosphorus and Seller harmless for any claims relating to such factors.

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United Phosphorus and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of United Phosphorus.

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DATA MATRIX

Date: October 1, 2003	EPA Reg No./ File Symbol 70506-	Page 1 of 6
Applicant's/Registrant's Name and Address: United Phosphorus, Inc. 423 Riverview Plaza Trenton, NJ 08611	Product: Bifenthrin EC Agricultural Insecticide	
Ingredient: Bifenthrin (PC 128825)		

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
PRODUCT SPECIFIC DATA					
830.1550	Chemical identity		UPI	own	
830.1600	Starting Materials		UPI	Own	
830.1650	Description of formulation process		UPI	Own	
830.1670	Discussion of formation of impurities		UPI	own	
830.1750	Certified limits		UPI	Own	
830.1800	Enforcement analytical method		UPI	Own	
830.6302	color		UPI	own	
830.6303	Physical state		UPI	Own	
830.6304	odor		UPI	Own	
830.6314	Oxidation/reduction		UPI	Own	
830.6315	flammability		UPI	Own	
830.6316	Explodability		UPI	Own	
830.6317	Storage stability		UPI	Own	
830.6319	Miscibility		UPI	Own	
830.6320	Corrosion characteristics		UPI	Own	
830.6321	Dielectric breakdown voltage		UPI	Own	
830.7000	pH		UPI	Own	
830.7100	viscosity		UPI	Own	
830.7300	Density/relative density/bulk density		UPI	Own	
870.1100	Acute oral toxicity	132527	FMC	Old	
870.1200	Acute dermal toxicity	132528	FMC	Old	
870.1300	Acute inhalation toxicity	144256	FMC	Old	

Signature <i>Elizabeth Anne Brown</i>	Name and Title Elizabeth Anne Brown, ChemReg International, LLC Registration Agent	Date 10/1/2003
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Ingredient: Bifenthrin (PC 128825)		

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
870.2400	Eye irritation	132530	FMC	Old	
870.2500	Dermal irritation	132529	FMC	Old	
870.2600	Dermal sensitization	132531	FMC	Old	
91-8	Efficacy – fire ants	CITE ALL	FMC, The Scotts Company, Aventis Environmental Sciences	pay	
GENERIC DATA					
61-1 (830.1550)	Chemical identity	45654401	United Phosphorus Inc (UPI)	Own	
61-2a (830.1620)	Starting materials and manufacturing process	45654401	UPI	Own	
61-2b (830.1670)	Formation of impurities	45654401	UPI	Own	
62-1 (830.1700)	Preliminary analysis	45654401	UPI	Own	
62-2 (830.1750)	Certification of limits	45654401	UPI	Own	
62-3 (830.1800)	Analytical method	45654401	UPI	Own	
63-2 (830.6302)	Color	45654402	UPI	Own	
63-3 (830.6303)	Physical state	45654402	UPI	Own	
63-4 (830.6304)	Odor	45654402	UPI	Own	
None (830.7050)	UV/Visible Absorption	CITE ALL	FMC Corp Agricultural Products Group (FMC); The Scotts Co (Scotts); The Andersons Lawn Fertilizer Division, Inc. (Andersons)	pay	
63-5 (830.7220)	Melting point	45838001	UPI	own	

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Ingredient: Bifenthrin (PC 128825)		

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
63-7 (830.7300)	Density	45838001, 46008501, 46008502	UPI	own	
63-8 (830.7840)	Solubility	CITE ALL	FMC, Scotts, Andersons	pay	
63-9 (830.7950)	Vapor pressure	CITE ALL	FMC, Scotts, Andersons	Pay	
63-10 (830.7370)	Dissociation constant	CITE ALL	FMC, Scotts, Andersons	Pay	
63-11 (830.7550)	Octanol/water partition	CITE ALL	FMC, Scotts, Andersons	Pay	
63-12 (830.7000)	pH	45838001	UPI	own	
63-13 (830.6313)	Stability	45654403	UPI	own	
830.6314	Oxidation/reduction	45838001	UPI	Own	
830.6315	Flammability	45838001	UPI	Own	
830.6316	explodability	45838001	UPI	Own	
830.7220	Boiling point	45838001	UPI	Own	
830.7370	Dissociation constant	45838001	UPI	own	
71-1b (850.2100)	Avian acute oral toxicity	CITE ALL	FMC, Scotts, Andersons	Pay	
71-2 (850.2200)	Avian dietary toxicity	CITE ALL	FMC, Scotts, Andersons	Pay	
71-4 (850.2300)	Avian reproduction	CITE ALL	FMC, Scotts, Andersons	Pay	
72-1 (850.1075)	Fish acute toxicity	CITE ALL	FMC, Scotts, Andersons	Pay	
72-2 (850.1010)	Invertebrate toxicity	CITE ALL	FMC, Scotts, Andersons	Pay	
72-3 (850.1025 - 1055)	Estuarine/marine toxicity	CITE ALL	FMC, Scotts, Andersons	Pay	
72-4 (850.1300)	Invertebrate Chronic toxicity	CITE ALL	FMC, Scotts, Andersons	Pay	
72-4 (850.1350)	Invertebrate chronic toxicity	CITE ALL	FMC, Scotts, Andersons	Pay	
72-5 (850.1400)	Fish life early life cycle	CITE ALL	FMC, Scotts, Andersons	Pay	

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Applicant's/Registrant's Name and Address: United Phosphorus, Inc. 423 Riverview Plaza Trenton, NJ 08611	Product: Bifenthrin EC Agricultural Insecticide	
Ingredient: Bifenthrin (PC 128825)		

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
141-1 (850.3020)	Honeybee acute contact toxicity	CITE ALL	FMC, Scotts, Andersons	pay	
81-1 (870.1100)	Acute oral - rat	45654404	UPI	Own	
81-2 (870.1200)	Acute dermal - rabbit/rat	45645505	UPI	Own	
81-3 (870.1300)	Acute inhalation - rat	00155286	FMC	Old	
81-4 (870.2400)	Primary eye irritation - rabbit	00132522	FMC	Old	
81-5 (870.2500)	Primary dermal irritation - rabbit	00132521	FMC	Old	
81-6 (870.2600)	Dermal sensitization	00132523	FMC	Old	
81-8 (870.6200)	Acute neurotoxicity	CITE ALL	FMC, Scotts, Andersons	Pay	
82-1 (870.3100)	90-Day feeding	CITE ALL	FMC, Scotts, Andersons	pay	
82-2 (870.3200)	21-Day dermal toxicity - rats	CITE ALL	FMC, Scotts, Andersons	Pay	
82-7 (none)	Subchronic neurotoxicity - rat	CITE ALL	FMC, Scotts, Andersons	pay	
83-1a (870.4100)	Chronic feeding toxicity - rodent	CITE-ALL	FMC, Scotts, Andersons	Pay	
83-1b (870.4100)	Chronic feeding toxicity - dog	CITE-ALL	FMC, Scotts, Andersons	Pay	
83-2a (870.4200)	Oncogenicity - rat	CITE-ALL	FMC, Scotts, Andersons	Pay	
83-2b (870.4200)	Oncogenicity -- mouse	CITE-ALL	FMC, Scotts, Andersons	Pay	
83-3a (870.3700)	Teratogenicity - rat	CITE-ALL	FMC, Scotts, Andersons	Pay	
83-3b (870.3700)	Teratogenicity - rabbit	CITE-ALL	FMC, Scotts, Andersons	Pay	
OPPTS 870.6300	Developmental Neurotoxicity	Data gap			
84-2	Mutagenicity studies	CITE-ALL	FMC, Scotts, Andersons	Pay	
84-4	Other genotoxic effects	CITE-ALL	FMC, Scotts, Andersons	Pay	
85-1 (870.7485)	General metabolism	CITE-ALL	FMC, Scotts, Andersons	Pay	
85-2	Dermal absorption	CITE-ALL	FMC, Scotts, Andersons	Pay	
161-1	Hydrolysis	CITE ALL	FMC, Scotts, Andersons	Pay	

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Date: October 1, 2003	EPA Reg No./ File Symbol 70506-	Page 5 of 6
Applicant's/Registrant's Name and Address: United Phosphorus, Inc. 423 Riverview Plaza Trenton, NJ 08611	Product: Bifenthrin EC Agricultural Insecticide	
Ingredient: Bifenthrin (PC 128825)		

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
161-2	Photodegradation in water	CITE ALL	FMC, Scotts, Andersons	Pay	
162-1	Aerobic soil metabolism	CITE-ALL	FMC, Scotts, Andersons	Pay	
163-1	Adsorption/desorption	CITE ALL	MC, Scotts, Andersons	Pay	
164-1 (875.2200)	Field soil dissipation	CITE-ALL	FMC, Scotts, Andersons	Pay	
165-4	Bioaccumulation in fish	CITE-ALL	FMC, Scotts, Andersons	pay	
Special studies	Other	CITE ALL	Pyrethroid Working Group	pay	
132-1 (857.2100)	Foliar residue dissipation	CITE ALL	FMC, Scotts, Andersons	Pay	
133-3 (875.2400, 2500)	Dermal exposure	CITE ALL	UPI is a member of the Ag Re-entry task force; UPI is a member of the Outdoor Residential Task Force	Own	
133-4 (857.2500)	Inhalation exposure	CITE ALL	UPI is a member of the Ag Re-entry task force; UPI is a member of the Outdoor Residential Task Force	Own	
201-1, 202-1 (840.1100, 835.4200)	Spray drift and droplet size	CITE ALL	UPI is a member of the Spray Drift Task Force	Own	
171-4a	Nature of residue - plants	CITE ALL	FMC	Pay	
171-4b	Nature of residue - livestock	CITE ALL	FMC	Pay	
171-4c	Residue analytical method - plants	CITE ALL	FMC	Pay	
171-4d	Residue analytical method - animals	CITE ALL	FMC	Pay	
171-4e	Residue storage stability	CITE ALL	FMC	Pay	
171-4j	Magnitude of residues - meat/milk/poultry/egg	CITE ALL	FMC	Pay	
171-4k	Magnitude of residues - field crop trials	CITE ALL	FMC, IR-4	Pay	
171-4l	Magnitude of residues - processed commodities	CITE ALL	FMC	Pay	

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Ingredient: Bifenthrin (PC 128825)		

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
171-4m	Multi-residue method	CITE ALL	FMC	Pay	
165-1	Confined rotational crop	CITE ALL	FMC	Pay	
165-2	Field rotational crop	CITE ALL	FMC	Pay	

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Applicant's/Registrant's Name and Address:

United Phosphorus, Inc.

423 Riverview Plaza

Trenton, NJ 08611

Product: Bifenthrin EC Agricultural Insecticide

Ingredient: Bifenthrin (PC 128825)

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
			UPI	own	
			UPI	Own	
			UPI	Own	
			UPI	own	
			UPI	Own	
			UPI	Own	
			UPI	own	
			UPI	Own	
			UPI	Own	
			UPI	Own	
			UPI	Own	
			UPI	Own	
			UPI	Own	
			UPI	Own	
			UPI	Own	
			UPI	Own	
			UPI	Own	
			UPI	Own	
			FMC	Old	
			FMC	Old	
			FMC	Old	

Signature

Elizabeth Anne Brown

Name and Title

Elizabeth Anne Brown, ChemReg International, LLC
Registration Agent

Date

10/1/2003



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Ingredient: Bifenthrin (PC 128825)		

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
			FMC	Old	
			FMC	Old	
			FMC	Old	
			FMC, The Scotts Company, Aventis Environmental Sciences	pay	
			United Phosphorus Inc (UPI)	Own	
			UPI	Own	
			UPI	Own	
			UPI	Own	
			UPI	Own	
			UPI	Own	
			UPI	Own	
			UPI	Own	
			UPI	Own	
			FMC Corp Agricultural Products Group (FMC); The Scotts Co (Scotts); The Andersons Lawn Fertilizer Division, Inc. (Andersons)	pay	
			UPI	own	

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Ingredient: Bifenthrin (PC 128825)		

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
			UPI	own	
			FMC, Scotts, Andersons	pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			UPI	own	
			UPI	own	
			UPI	Own	
			UPI	Own	
			UPI	Own	
			UPI	Own	
			UPI	own	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	

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Ingredient: Bifenthrin (PC 128825)		

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
			FMC, Scotts, Andersons	pay	
			UPI	Own	
			UPI	Own	
			FMC	Old	
			FMC	Old	
			FMC	Old	
			FMC	Old	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	

Signature <i>Elizabeth Anne Brown</i>	Name and Title Elizabeth Anne Brown, ChemReg International, LLC Registration Agent	Date 10/1/2003
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

401 M Street, S.W.

WASHINGTON, D.C. 20460

Form Approved OMB No. 2070-0060

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 0.25 hours per response for registration activities and 0.25 hours per response for reregistration and special review activities, including time for reading the instruction and completing the necessary forms. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington DC 20460. Do not send the form to this address.

DATA MATRIX

Date: October 1, 2003	EPA Reg No./ File Symbol 70506-	Page 5 of 6
Applicant's/Registrant's Name and Address: United Phosphorus, Inc. 423 Riverview Plaza Trenton, NJ 08611	Product: Bifenthrin EC Agricultural Insecticide	
Ingredient: Bifenthrin (PC 128825)		

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			MC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	Pay	
			FMC, Scotts, Andersons	pay	
			Pyrethroid Working Group	pay	
			FMC, Scotts, Andersons	Pay	
			UPI is a member of the Ag Re-entry task force; UPI is a member of the Outdoor Residential Task Force	Own	
			UPI is a member of the Ag Re-entry task force; UPI is a member of the Outdoor Residential Task Force	Own	
			UPI is a member of the Spray Drift Task Force	Own	
			FMC	Pay	
			FMC	Pay	
			FMC	Pay	
			FMC	Pay	
			FMC	Pay	
			FMC	Pay	
			FMC, IR-4	Pay	
			FMC	Pay	

Signature <i>Elizabeth Anne Brown</i>	Name and Title Elizabeth Anne Brown, ChemReg International, LLC Registration Agent	Date 10/1/2003
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DATA MATRIX

Date: October 1, 2003

EPA Reg No./ File Symbol
70506-

Page 6 of 6

Applicant's/Registrant's Name and Address:

United Phosphorus, Inc.

423 Riverview Plaza

Trenton, NJ 08611

Product: Bifenthrin EC Agricultural Insecticide

Ingredient: Bifenthrin (PC 128825)

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
			FMC	Pay	
			FMC	Pay	
			FMC	Pay	

Signature

Elizabeth Anne Brown

Name and Title

Elizabeth Anne Brown, ChemReg International, LLC
Registration Agent

Date

10/1/2003

ChemReg
INTERNATIONAL, LLC

1990 OLD BRIDGE ROAD, SUITE 201
LAKE RIDGE, VIRGINIA 22192-2383

DIRECT: 703-492-7905
MAIN: 703-492-0445
Fax: 703-492-0668

E-MAIL: brown@chemreg.com
WEB SITES: www.chemreg.com
www.pesticide.net

ELIZABETH A. BROWN, PH.D.

October 6, 2003

Document Processing Desk (APPL)
U.S. Environmental Protection Agency (7505C)
U.S. Environmental Protection Agency
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202-4501

Attn: George LaRocca (PM 13)

Re: Application for Registration of "Me-Too" Bifenthrin EC Agricultural Insecticide

On behalf of our client, United Phosphorus, Inc. (UPI), we are submitting an application for a "me-too" registration of Bifenthrin EC Agricultural Insecticide Insecticide (EPA Product Code 128825). This product is substantially similar in composition and labeling to the already registered EPA Reg No. 279-3069 (based on most recent label approval of 5/7/2003).

Enclosed with this letter, please find the following items:

1. Application Form (EPA Form 8570-1)
2. Confidential Statement of Formula (EPA Form 8570-4)
3. Data matrix forms, Agency Use and Public File copies (EPA Form 8570-35)
4. Certification with Respect to Citation of Data (EPA Form 8570-34)
5. Five (5) copies of the proposed labeling
6. Transmittal document
7. Three (3) copies of each submitted study.

Please note that we are relying upon the selective cite-all method to satisfy data requirements that have not been satisfied by data submitted by UPI. Data submitted for this application also fulfills requirements for a concurrent application for Bifenthrin EC-CA Agricultural Insecticide; the two products are identical in composition but the uses are limited on the EC-CA in comparison to this application.

CONSULTANTS TO SUCCESSSM

Over One Hundred and Fifty Years of Combined Experience Assisting Chemical, Pesticide, Bio-Chemical and Life Science Companies on a Wide Range of Issues, Including Regulatory Strategies, Registration, Data Support and Compensation, Quality Assurance, Study Design and Scientific Matters.

Letter to G. Larocca, October 6, 2003, page 2

Please let me know if you have any questions about this application or if any additional information is needed.

Sincerely,

Elizabeth Anne Brown

Elizabeth Anne Brown, Ph.D.

cc: United Phosphorus, Inc.

TRANSMITTAL DOCUMENT

Submitter

United Phosphorus, Inc
423 Riverview Plaza
Trenton, NJ 08611

Regulatory action in support of which this package is submitted

New Product Registration ("Me-Too")
(Bifenthrin EC Agricultural Insecticide)
(Bifenthrin EC-CA Agricultural Insecticide)

Transmittal Date

October 6, 2003

Submitted Studies

	MRID	
----		Administrative Materials
Document 1:		Tillman, A. Sept. 19, 2003. Bifenthrin EC Agricultural Insecticide, Bifenthrin EC-CA Agricultural Insecticide. Product Identity, Composition and Analysis (Group A). United Phosphorus, Inc. Report No. UPI-Bifen EC - 2003-10. 44 pages. Contains Confidential Business Information.
Document 2		Tillman, A. Sept. 19, 2003. Bifenthrin EC Agricultural Insecticide, Bifenthrin EC-CA Agricultural Insecticide. Self-certification of physical/chemical properties. United Phosphorus Inc. Report No. UPI-Bifen EC 2003-11. 5 pages.

Company Official

Elizabeth Anne Brown

Company Name: ChemReg International, LLC., Authorized Representative for UPI

Company Contact: Elizabeth Anne Brown

Phone Number: 703-492-7905

CHEMICAL NAME/PESTICIDE CHEMICAL CODE (PCC) REQUEST FORM

CR#: 03-0622

REQUESTOR NAME: BRUCE F. KITCHENS REQUEST DATE: DEC. 8, 2003
 TEL: 308-9372 ORG: TRB/RD ROOM: 270 CM2 MAIL CODE: 7505C
 (Division/Branch)

CSF ATTACHED:

☒ YES If CSF is attached complete Item A and the chemical name in Item B
☐ NO If CSF is not attached complete Item A through Item C

A. INFORMATION REQUIRED:

✓ Check Applicable Category

☒ Provide PCC and Tolerance Exemption Status for Food-Use Inert Ingredient(s)
☐ Provide PCC for Non-Food Use Inert Ingredient(s)
☐ Provide PCC for Active Ingredient(s)
☐ Provide PCC for Dye
☐ Determine if Fragrance is Acceptable for Use in Formulation
☐ Other (Describe):

B. INGREDIENT INFORMATION:

Ingredient No. 1:

Chem. Name:
 Trade Name:
 CAS Reg. No:

Ingredient No. 2:

Chem. Name:
 Trade Name:
 CAS Reg. No.:

Ingredient No. 3:

Chem. Name:
 Trade Name:
 CAS Reg. No.:

Ingredient No. 4

Chem. Name:
 Trade Name:
 CAS Reg. No.:

C. PESTICIDE PRODUCT INFORMATION

EPA Reg. No./File Symbol: 70506-LT Product Name: BIFENTHRIN EC AGRICULTURAL INSECTICIDE

Registrant: UNITED PHOSPHORUS, INC. Food- Use Pesticide: ☒ Yes ☐ No

Percent in Formulation (For Fragrances/Dyes only): %

INFORMATION REPORTED:

Ingredient No. 1:

PCC:
 Tol. Status/Other Info:
 Ingredient No. 2

Ingredient No. 2:

PCC:
 Tol. Status/Other Info: 40 CFR 180.1001 (d)
 Ingredient No. 4

PCC:
 Tol. Status/Other Info:

PCC:
 Tol. Status/Other Info:

Completed by: LINDA FGN Date Completed: 12/09/2003
 Once completed, this form may be entitled to treatment as CBI under section 10 of FIFRA. If so, a red 341

Inert ingredient information may be entitled to confidential treatment

